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AUGUST 30, 1919.

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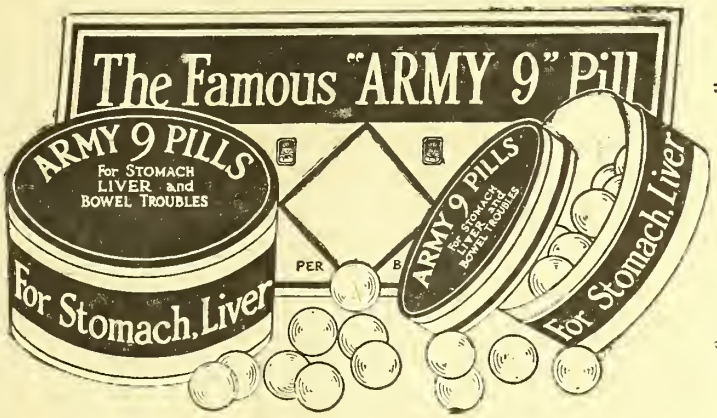

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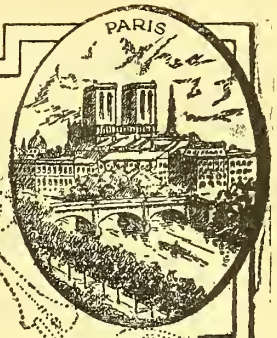

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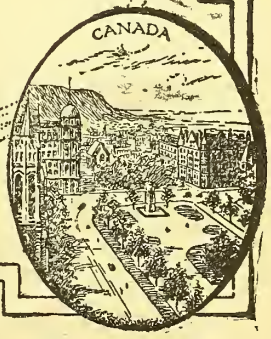
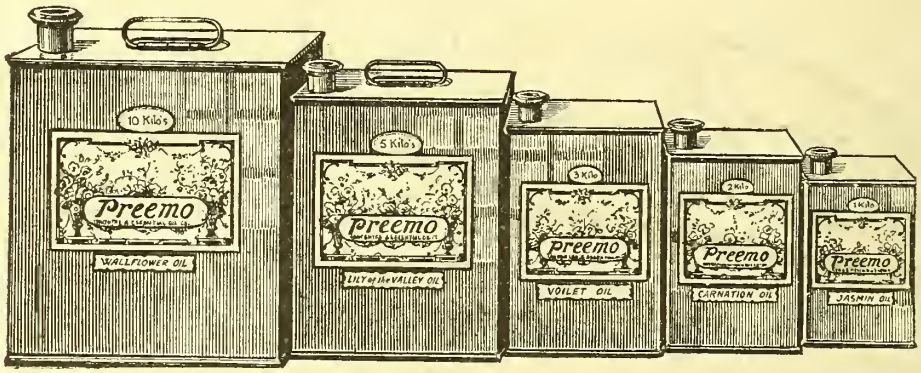


"PREEMO"

FLORAL OILS

For Putting up in Bottles for Sale.



Far superior to ordinary Brilliantine Oils, each perfume having the true odour of the natural flower.

"Preemo" Floral Oils are offered in three qualities: 1st @ 15/-; 2nd @ 10/6; 3rd @ 7/6 per kilo. With such a choice you can put them up in the strength that suits your particular class of trade, and in addition you may dilute with odourless oil.

The distinctive and delightful fragrance of these Oils will give your customers the greatest satisfaction, ensuring many repeat orders.

If you are not a user of "Preemo" Floral Oils we invite you to try them at our expense.

SEND FOR FREE SAMPLES.

All bona-fide enquiries will be promptly responded to.

The PREEMO Concentré & Essential Oil Co.,

63 HIGH HOLBORN, LONDON, W.C. 1

Telegrams: "APPREEMONA, Holb., London." Telephone: HOLBORN 3095.

One of *Pears* Golden Series

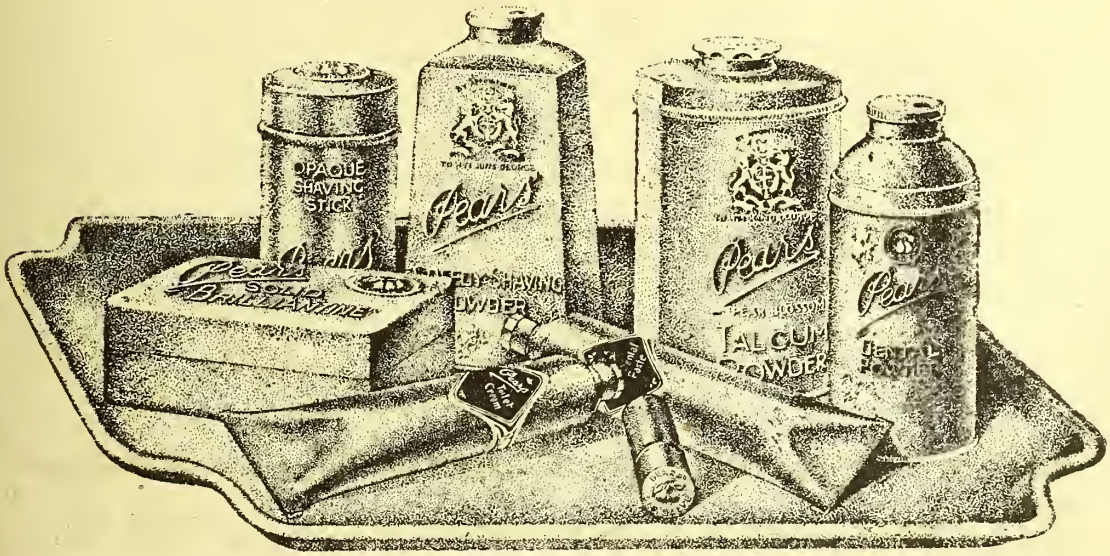
THIS is another of the popular Pears Golden Series of Toilet Requisites which are being advertised so extensively just now. They are just that little bit *better*, which is a characteristic feature of all Pears productions.

PROTECTED RETAIL PRICE

Pears 1/3

DENTAL PASTE

For the better display of this attractive Series, we provide our customers with a beautiful golden tray which sets off the containers to the best advantage and makes an irresistible appeal to the eye.



A. & F. Pears, Ltd., 71-75 New Oxford St., LONDON, W.C. 1

WHY UCAL "stands fast"

Ucal is neither revolutionary nor reactionary—but its "constitution" limits membership to Pharmacists qualified by Examination.

That regulation is not necessarily as "immutable as the laws of the Medes and Persians"—but it does seem likely to prove more enduring than a certain British Act of Parliament.

So the Ucal Sign may soon be the chief distinction remaining to the Pharmacist who has qualified by examination.

The significance of "The Sign of Reliability" will not be lost upon the public.

Join Ucal NOW—join for profit, or join for strength—you will surely reap both. Busy as they are at Cheltenham they are not too busy to answer your serious enquiries.

Write to Ucal Cheltenham.

UCAL MAKES YOU

Your own Manufacturer
Your own Distributor
Your own Capitalist
Your own Master

Ucal is already a commercial success growing greater day by day.

Ucal is a steady and safe dividend payer to its investors and has built up substantial reserves.

Ucal provides its members with Saleable Goods produced under strict analytical control at a fair price. The Ucal goods are fair to the public and to the Pharmacist.

Ucal introduced the policy of Face Value as minimum selling price.

Ucal provides Sales service, including advice on your own advertising—such advice being rendered by successful men who have solved problems like your own.

Ucal products are welcomed by and have the support of a large portion of the Medical Profession.

Two thousand Pharmacists can use their purchasing power to greater advantage than an individual can.

The Ucal plan is purely co-operative, it has no attraction for the man who desires to reap without first sowing.

If your business is languishing it needs a real tonic.

Regular Advertising Service, Sales' Help, Ideas, Service, Better Goods. The old goods also at better prices. These things bring prosperity to the Pharmacist via Ucal.

If you wish to join in Ucal benefits write the

Managing Director,
Ucal, Cheltenham Spa,

for full particulars. New members are accepted as quickly as present-day conditions will allow.

Maw's Page.
TRADE MARK
S·MAW·SON & SONS·LTD
7/12. ALDERSGATE ST. LONDON, E.C.1., ENGLAND.
No. 411.
30:8:19.

Medicinal Influences

The making of perfume is almost as old as the world itself, for even the cave woman in her crude way found means to extract the perfume from flowers which she found growing near her humble abode.

Developed in Persia.

It was in Persia, however, that perfume-making received its first real development. Later the priests in Egypt, who were the sole depositories of science in ancient days, and who knew the secret of aromatic substances, devoted a great deal of time to the manufacture of perfume.

These perfumes acquired great celebrity, especially those made in Alexandria. They were at first reserved for religious rites and ceremonies only, but subsequently became of current use among the wealthy classes.

Cleopatra was an artist in the use of perfumes, and each room in her palace had its own individual perfume. During banquets the perfume was diffused through the halls and burnt in profusion.

Greek and Roman Perfumes.

The Israelites, during their sojourn in Egypt, adopted the use of aromatic substances primary for religious purposes, and afterwards for personal use.

The Greeks, who loved elegance, were very fond of perfumes, and they taught the secrets of manufacture to the Romans.

In the days of their decadence the Romans committed a thousand follies with perfumes, and they went so far as to scent the coats of their dogs. The women of Rome used it profusely, and the Poppæa anointed her features with a paste formed of barley flour diluted with perfumed oils. She removed the coating with a lotion of ass's milk.

Medicinal Influences.

In the middle ages the Arabs, Venetians, Genoese, and Florentines became famous for their preparation of sweet-smelling essences. France did not become acquainted with perfumes until after the Crusades, and it was Marie de Medici who especially brought them into favour.

Makers of perfumes quickly recognised their good or bad medicinal influences.

It was remarked both in Paris and London during the cholera epidemic in the last century that no one engaged in the making of perfumes was ever attacked by the disease. On the other hand, it is claimed that the scent of flowers has a marked action on the vocal cords.

For My Lady.

Our No. 11 Eau de Cologne has been distilled under ideal conditions, and contains all those refreshing and stimulating properties which constitute its charm and delicacy. The prices are

4-oz. reputed	47/6	per doz.
½-pint wicker	80/-	"
1-pint "	148/9	"
1-quart "	302/9	"

A Cologne for the present season —for all times—for all occasions.

Discus

Menthol

If there is one thing that the "House of Maw" is rightly famed for it is Menthol. An unfailing regularity of purity; a splendid assortment of patterns. We have always been relied upon for Menthol quality by Pharmacists who know. In view of the present market fluctuations the following list of revised prices should be of special interest to all for the coming season.

Fig. 2211/1. Bullet, No. 1	16/6	per gross.
" 2211/2. " " 2	27/-	"
O1 Ped. White Wood Case	14/6	"
Fig. 2212/1. Ped., No. 1	3/3	per doz.
" 2212/2 " " 2	3/9	"
" 2212/3 " " 3	5/6	"
" 2212/4 " " 4	6/6	"
" 2212/5 " " 5	10/6	"
"Oak" Brand, No. 1, Acorn	5/6	"
" " " 2 "	8/-	"
" " " 3 "	10/6	"
" " " 0 "	3/6	"
Magnum (No. 5 Size)	10/6	"
Flat Pocket Cases, Aluminium	6/-	"
Fig. 2209/1, No. 1	5/3	"
" 2209/2 " 2	6/6	"
" 2209/2a " 2a	7/-	"
" 2209/3 " 3	12/6	"
" 2209/4 " 3	24/-	"
" 2226/F. Cone and Inhaler, each in box	6/-	"
" 2 29/F. Menthol Pencils	6/9	"
" B2224/F. In Actinic Bottles	7/6	"
No. 11. Ped.	7/3	"
Fig. 2221/F. No. 10 in Bottles	4/-	"
" 2221/F. " V.I. Base Bottles	6/-	"
" 2221/F. " No. 11 Bottles	5/-	"
" 2221/F. " " 12a "	6/9	"
" 2221/F. " " 12 "	9/6	"
" B2222/F. Small Earthenware Base	8/6	"
" B2222/F. Large " "	13/6	"
" B2223/F. Small Glass Base	5/9	"
" B2223/F. Large " "	8/6	"
Menthol Crystals in Bottles, 1 lb.	35/-	lb.
" " " ½ lb.	36/-	"
" " " ¼ lb.	36/6	"

These figures refer to our 1913 Illustrated Price List. All sizes in stock.

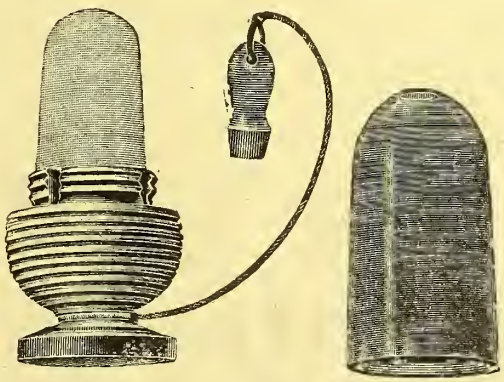


Fig. 2226/F.

Fig. 2212.

Delphinus Mfg. Co.

Offers an opportunity to every **Chemist and Druggist** of supplying their customers with genuine lines attractively packed, and of making **large profits** for themselves (**nearly 140%**).

To introduce our lines we are offering (**for a limited time only**) **£2-7-6 for £1**, as follows:

3 doz.	Delphinus Nail Polish (6d. size)	**18 -**
2 ,,	,, Cloth Cleaner (4½d. ,,)	**9 -**
2 ,,	,, Styptic Pencils (6d. ,,)	**12 -**
1 ,,	,, Antiseptic Shaving Block (8½d. ,,)	**8 6**
		£2-7-6

The above will be supplied **carriage and package free** to every reader of the "C. & D." for the **price of £1**, monthly account, or less 3¾% for prompt cash.

This offer is worth consideration.

Special quotations to shippers, large buyers, &c.,&c.

Export to All Countries.

45 Edward Street, Brighton, Sussex, England.

YOU WILL LOSE

NOTHING

BUT YOU GAIN

£1 8 3

ON AN OUTLAY OF

19/3

See opposite.

THIS OFFER HOLDS GOOD UNTIL

SEPT. 15 ONLY.

DELPHINUS MFG. CO.
45 Edward Street,
BRIGHTON, SUSSEX.

SALES
BEAT ALL RECORDS.

INDIAN PERFUME BRICK

KEEPS AWAY MOTH.
LASTING & FRAGRANT.

PERFUME BRICK

FOR LINEN CUPBOARD AND WARDROBE.

Retail Price, ***6d.***

Of the Makers:

ALBERT WILLIS & ARTHUR, Ltd.
6 Mortimer St., London, W.
AND ALL WHOLESALERS.

F. M. RUDD,
Bronson,
MICHIGAN,
U.S.A.

GENUINE AMERICAN PEPPERMINT OIL

"Columbia" Natural
"Diamond White"
Re-distilled.

Finest qualities for Druggists, Distillers and Confectioners.

Sole Consignees in United Kingdom—
R. W. GREEFF & CO.
Thames House,
Queen St. Place, LONDON, E.C.

CHEMICALS
DYES
ESSENTIAL OILS

For the Toilet and Perfumery Trades

EUDERMINE CO., LTD.
79 COLEMAN STREET, LONDON, E.C.2.

SAVE 3/- PER GALLON

BY BUYING

GUARANTEED GENUINE

NEWFOUNDLAND NON-FREEZING MEDICINAL COD LIVER OIL

OF NEW SEASON'S MAKE.

Highest possible quality in smell, taste and colour, comparing most favourably with the finest Norwegian. Manufactured from the finest fresh Cod Liver on same day as fish caught.

WHOLESALE ONLY.

Kindly write for sample to

JOB BROS., Manufacturers, Tower Building, LIVERPOOL.

Telegraphic Address: "JOB LIVERPOOL." Tel. 1039 CENTRAL.

And of ST. JOHN'S, N.F. Established 1780.

The "FASTNET"

BANDAGES

IN SEALED CYLINDERS

The following are a few of the many advantages of the "Fastnet" Bandages over any other Water-dressing Bandages on the market:—

(1) The cloth from which they are made is of even manufacture, very absorbent and heavy texture.

(2) They are tightly rolled by a patent process, the benefit of this will be at once appreciated by the surgeon when applying.

(3) They are cleanly cut and evenly packed.

(4) They are each packed in a sealed cylinder, ensuring cleanliness in use and in storage, and require no further wrapping before sale.

Samples and prices can be had on application to Sole Agents:—

JOHN TIMPSON & CO., Ltd., 104/6 Golden Lane, London, E.C.1

Manufacturers of Perfumes & Toilet Specialties

are respectfully invited to send samples and write to us in regard to representation for the sale of their products in Japan, where we have specialised in these lines for the last forty-nine years.

The demand in Japan for these goods has increased enormously of late, and the tendency is for a still greater increase.

We do not hold agencies merely to pass on orders should they happen to come in; we PUSH sales by means of vigorous and extensive advertising.

OSAKIGUMI SHOKAI,

AZUCHIMACHI, 4 CHOME, OSAKA, JAPAN.

Branches in Tokio and other important cities.

N.B.—We have an experienced European in charge of our Foreign Department.

PAINTING MATERIALS.

Write for complete Price List and Shade Cards to the actual manufacturers. We can guarantee prompt dispatch, best quality, and lowest prices.

"RAYOLENE" Ready Mixed PAINT.
Special Decorators' Quality.
Supplied in 1, 2, 4, 7 and 14-lb. tins.

"TEXALO," the Ideal WATER PAINT.
Twenty beautiful shades. In tins and bulk.

"FLINTEX" Dry Sanitary DISTEMPER.
In Powder form. Supplied in 3 and 6-lb. packets.

"GENIE," the Ideal Liquid SILVER POLISH

"RAYOLENE" BLACK JAPAN.
The best preparation for Cycles, Fire Ranges, Mail Carts, Gas Stoves, and all wood or ironwork.
In tins, to retail at 9d., 1/6 and 2/9.

"RAYOLENE" OIL VARNISH STAINS.
Far superior to methylated spirit preparations.

"RAYOLENE" HOUSEHOLD DYES.
For Silk, Wool, Cotton, or Mixed Goods.
In 3d. and 6d. packets.

Shade Cards, and prices of all above, free on application.

TEXALO MANUFACTURING CO.
PAINT & VARNISH MANUFACTURERS,
SOUTH SHORE, BLACKPOOL, LANCS.

CORKS	Velvet Finish (6 gross bags)	1/-	gross
,,	Good Quality ,, ,,	9d.	,,
RUBBER SPONGES	Oval ...	7/-	doz.
CORN VELVET	(3 doz. cards)	3/-	,,
BAY RHUM	(2½ oz. Flint Panels)	9/-	,,
TOILET PARAFF.	do. ...	7/-	,,

VIALS (W.F.)

2 dr.	½ oz.	1 oz.	2 oz.	
22/6	24/-	27/-	30/-	gross

EMERY CLOTH	(all Nos.) ...	2/9	quire
SAND PAPER	,, ,,	2/-	,,
CLINICALS	3/3, 3/6 & 3/9 (All stamped N.P.L.)		each
SOAP CASES	(Xylonite) 9/- 12/6		doz.

THOS. SWALES,
Druggists' Sundryman,
24 BUTTS COURT, & 89 ALBION STREET,
LEEDS.

The Perfect Cologne !

It is not enough that Cologne should smell sweet from the bottle. The sweet, soothing aroma must last, and last sweetly on handkerchief or fevered brow.

There should be no change in the aroma of the perfect Cologne. Its freshness should be as persistent as its lasting properties.

Eau de Cologne Delvoix lasts, and lasts sweetly. Its freshness refreshes continually. It soothes the fevered brow, and delights the sense of smell. Its aroma never cloys, and it is the perfect Cologne.

	1-oz.	2-oz.	4-oz.	
	15/-	26/6	45/-	per dozen.
	Reptd. ½-pt.	1-pt.	2-pt.	
In Wickers	72/-	136/-	265/-	,, ,,

As is our custom, Showcards are supplied FREE.

AYRTON, SAUNDERS & CO. LTD.
LIVERPOOL

Your last opportunity

to secure a "RAYMET"

14-ct. Gold-nib Fountain Pen FREE

Most chemists by now are familiar with our advertisements which have been appearing in this paper making the above offer of a 14-ct. Gold-nib fountain pen free, with an order for

1 Gross 3d. RAYMET HENNA & QUININE SHAMPOOS at 20/-

The offer will be withdrawn on September 6.

The scheme has been very successful in introducing Raymet Shampoos and stock is held by one or more Chemists in practically every town of importance. We have had good reports of the sales, and numerous repeat orders.

Quick Selling, extensively Advertised, and well Packed. The Raymet Shampoo is a genuine article that gives satisfaction and brings repeat orders.

> *The Chemist and Druggist* says:—"Raymet Shampoos are pleasantly perfumed, packed in envelopes of an effective pale-blue design—each half-gross being placed in an outer, which forms a display case. The Fountain Pen is a genuine article which those who receive it are sure to appreciate."

If we have not yet received your order, will you let us have it without delay. Just write a post-card ordering one gross Raymet Shampoos at 20/- (retail 3d. each P.A.T.A.) and we will send you the Fountain Pen free of charge. The only condition being that you display one of the show outers in your window for two weeks. Orders may be invoiced through any wholesaler or will be sent direct upon receipt of remittance value 20/-. Only one pen can be sent to any one address.

Your Profit 45% on Turnover

RAYMET & CO. LTD.

507/509 Harrow Road, LONDON, W. 10.

VEN-YUSA
Shampoo Powders

DAINTY

ATTRACTIVE

PROFITABLE

AND

Well Advertised

PRICES—3d. size, **11/-** for carton containing 6 dozen Powders.

1/6 size, **13/6** per dozen cartons

C. E. FULFORD, LTD., LEEDS.

POLAK & SCHWARZ LTD.

ESSENCES.

ESSENTIAL OILS.

AROMATIC CHEMICALS.

FLOWER OILS.

SYNTHETICS.

ZAANDAM. BOIS-COLOMBES

HOLLAND. FRANCE.

IT IS GOOD BUSINESS TO SHOW

POUDRE IMPERIA COMPACTE

Suggest to your DARK customers RACHEL and ROUGE BRUNETTE for attractive results.

Recommend your FAIR customers to buy ROUGE BRUNETTE and NATURELLE the two combined produce most artistic effects.

FACSIMILE OF SHOWCARD—
ONE OF OUR SELLING HELPS.

P.160 1 ... 6/6 per doz. ... Retails 1/-
P.160/2, with Mirror, 7/6 per doz. ... „ 1/3

THE EMPIRE PERFUMERY CO.

(Cuxson, Gerrard & Co. Ltd., Proprietors)

OLDBURY, ENG.

EXPORT AND COLONIAL INQUIRIES INVITED.

A Medical opinion of DULC-O-DO.

"I have tried Dulc-o-do in cases of excessive perspiration of feet, axilla, etc., and it has succeeded after Formalin, Belladonna, etc., have signally failed. I myself have suffered from excessive perspiration in the axilla, due to Malaria, which I got in India several years ago. I have also tried it, and it has completely relieved the condition. It seems to me a most excellent preparation."—Dr. H— M.B. Ch. B.

This design is appearing in the ladies' papers, and is our coloured Showcard reduced. There is a big demand for this harmless Toilet Water which corrects perspiration troubles, and makes dress shields unnecessary. Approved by the medical profession. Send **20/-** for a sample dozen and watch the rapid sales.

Bonus of 3 with 3 dozen lots. **Minimum Retail Price 2/6**

SCOTT'S CHEMICAL CO., LTD.,
47 HUDDLESTONE ROAD, WILLESDEN GREEN, N.W.2

Dulc-o-do

The Harmless Toilet Water for EXCESSIVE PERSPIRATION

WAVCURL

THIS article has now been sufficiently long before the public to enable them to sample its merits. This the public have done on a large scale, and many delighted users have come again and again to the retailers they buy from for further supplies. The demand has been extraordinary. At first the proprietors tried to cope with it per post, but they soon saw that this was too cumbersome and tedious a method, and they are now gladly availing themselves of the services of the trade. Wavcurl is a first-class seller and a first-class payer, too. The profits are all they should be on a toilet line, as any reader can see for himself in the P.A.T.A. Protected List. Forty per cent (40%) should surely awaken your interest, especially in a line that sells at sight. All classes of ladies, from the titled dame to the busy factory worker, are using it as their readiest means of keeping themselves attractive, notwithstanding the great demand there is just now upon their time. To the user it is a great time-saver; to the seller, a great money-maker. We invite your application for Showcards and Dummies for window-dressing. A Wavcurl window-show in an industrial or factory area will simply make the shillings shower into your till. Address post card to

THE WAVCURL CO.,
FULWOOD HOUSE, HIGH HOLBORN, W.C. 1

	Per doz.
1/6 Wavcurl (in packets) ...	9/-
2/9 Wavcurl (in bottles) ...	21/-
1/6 Complexion Cream ...	10/-
2d. Shampoo Powder ...	15/- gross.

	Per doz.
1/6 Duvetine (Superfluous Hair Remover) ...	9/-
1/6 Wavcurl Hair Tonic (9 in Powdered Form)	9/-
1/6 Eyelashine	9/-
Showcards for Window Dummies for Show	no charge

Agents: PARIS.—A. W. Scott, 38 Rue du Mont Thabor. CANADA.—W. W. Barry, 1 Port Street, Montreal.

LABORATORY OF GENERAL PHARMACOLOGY,
8, Rue Vivienne, Paris.
LONDON AGENTS:
WILCOX, JOZEAU & Co., 49, Haymarket, S. W.

CHAPOTEAUT'S CAPSULES of PHOSPHOGLYCERATE of LIME.
THE BEST TONIC FOR FORTIFYING AND BUILDING UP THE NERVOUS SYSTEM.
Sold by all Chemists.
Wholesale: 8, Rue Vivienne. PARIS.

MORRHUOL CHAPOTEAUT

CAPSULES
MORRHUOL DE CHAPOTEAUT is extracted from cod-liver oil, and contains all its efficacious properties without the disagreeable taste.
It cures Coughs, Bronchitis and Catarrh, restores the appetite, and gives force to feeble persons.
SOLD BY ALL DRUGGISTS.

CHANDRON'S DROPS
(Gouttes des Colonies)
A harmless antiseptic preventative against CHOLERA · FERMENTATION - INDIGESTION & other intestinal disturbances.
SOLD BY ALL CHEMISTS

LONDON AGENTS
HEPPELL & CO., 164, Piccadilly, W.

SICILIAN

LEMON - BERGAMOT
ORANGE - MANDARINE.

SPINELLI

THE OILS THAT HAVE A LONG REPUTATION FOR QUALITY.

In the manufacture of our Terpeneless Oils it was imperative that we secured the very finest Sicilian Oils to work upon. After several exhaustive tests we came to the conclusion that "SPINELLI" brand of Sicilian Oils gave us the best results. As we were able to place large orders for our own needs with the manufacturers, we have pleasure in stating that they have entrusted us with their British Agency, and we offer to users of Sicilian Oils the benefit of our experience. There is quality in every package. Guaranteed Genuine Oils of authentic origin, and to conform to any :: :: :: analysis as to purity. :: :: ::

HOLLANDS DISTILLERY LTD.

Lavington Street, Southwark, LONDON, S.E. 1

A B C Code, 5th Edition
Western Union.

Telegrams: "LANDSLOH, LONDON."
Telephone: HOP 898.

AMERICAN AGENTS—O. A. BROWN CO., INC., 99-101 Beekman Street, NEW YORK.
CANADIAN AGENTS—F. S. JARVIS & CO., 18 Toronto Street, TORONTO.

TERPENELESS OILS

BRITISH MADE.

We manufacture exclusively ourselves all kinds of Terpeneless Oils, and invite inquiries from users throughout the World.

WE SPECIALISE IN TERPENELESS:

Anise (Anethol)
Bay
Bergamot
Caraway
Cassia
Cinnamon
Clove
Dill
Geranium
Ginger
Juniper Berry
Lavender
Lemon
Limes
Mandarin
Nutmeg
Orange
Peppermint
Petitgrain
Rosemary

CITRAL

EUCALYPTOL

CINNAMIC ALDEHYDE

GERANIOL

HOLLANDS DISTILLERY, Ltd.

Lavington Street, Southwark, London, S.E. 1.

A B C Code (5th Edition).
Western Union.

Telegrams: "LANDSLOH LONDON."
Telephone: HOP 898.

***AMERICAN AGENTS*—O. A. BROWN CO. INC., 99-101 Beekman St., New York.**
***CANADIAN AGENTS*—F. S. JARVIS & CO., 18 Toronto Street, Toronto.**

ROURE BERTRAND FILS, GRASSE.

Established 1820.

LAVENDER (French), SPIKE LAVENDER (French and Spanish)

NEROLI, GERANIUM (AFRICAN and BOURBON), SANDALWOOD. PETITGRAIN (FRENCH and AMERICAN), VETYVER (JAVA and REUNION), ROSEMARY, BOIS DE ROSE FEMELLE, YLANG, &c.

ORRIS CONCRETE and LIQUID.

ESSENCES, SOLIDES and LIQUIDS from flowers. RESINOIDS and POMADES

We have Stocks in London of the most important Essential Oils and Perfumery Products.

JUSTIN DUPONT, Argenteuil (S. & O.), France

Makers of SYNTHETIC PERFUMES

and some of the finest original odours extant, for Sachets, &c.

SOLE AGENTS FOR THE UNITED KINGDOM:

STEPHENS BROTHERS & CO., 2, 5, & 6 Bury Court, St. Mary Axe, London, E.C.3.

Wholesale Houses only supplied.

PURE SPANISH ESSENTIAL OILS

(LONABARC BRAND).

ROSEMARY
PENNYROYAL
FENNEL (SWEET & BITTER)
LAVENDER
THYME (RED & WHITE)
ORANGE
GERANIUM
SAGE
LEMON

THYMOL

ACONITE ROOT
LAVENDER FLOWERS
GENTIAN ROOT
QUINCE SEEDS

Write for samples and prices to LONABARC TRADING CO., LTD., 5 FINSBURY SQUARE, E.C. 2.

'Phone: LONDON WALL 9020.

Natural Essence of Peppermint.

DELECTA

Twice Rectified. French Manufacture.

The best for Confectionery and for makers of Dentifrices, Peppermint Essence, &c.

M. GILBERT, VINCENNES (SEINE).

Selling Agent for the entire World.

TO USERS and DEALERS in METH. SPIRIT and SPIRIT OF WINE.

FOR QUOTATIONS apply to—

PRESTON'S LIVERPOOL DISTILLERY Co., Ld.

The Largest Makers in the Kingdom.

BANKHALL DISTILLERY, SANDHILLS, LIVERPOOL. Office: 4 India B'ngs, Water St., Liverpool.

"Lanzone" Lanolin

The Odourless Adeps Lanæ, B.P. Manufactured by

THE LONDON PHARMACEUTICAL REFINERS, LIMITED,
Martin's Yard, Endwell Road - LONDON, S.E. 4.

In a leading article in the "Medical Press" of June 26, 1918, occurs the following:—

"I hope that the same effort will be made to abolish Hun drugs as to get rid of Hun dyes. In one direction I am glad to find that this is being seriously attempted. One of the most important bases for ointments is lanoline. Now the English lanoline which is made by the London Pharmaceutical Refiners, Limited, of Brockley, has the merit of being superior to the old German lanoline. The B.P. allowance of fatty acids is '7, whereas this new English lanoline shows only '27. The new preparation is quite odourless, and acid fats do not develop in it by keeping. These are great merits, and show the extreme care with which the refining process has been carried out by the British refiners."

Samples and Quotations from the Selling Agents:

THE PRODUCE BROKERS' COMPANY, LIMITED, 24 St. Mary Axe, LONDON, E.C. 3.

THE name Zenobia is so intimately associated with perfection in perfumery, that the buying public eagerly welcome the Toilet Preparations also manufactured by the firm of Zenobia, Ltd. Chemists will find that the name

ZENOBIA

alone is sufficient to ensure ready sales, while the pleasure found in the use of Zenobia Specialities in its turn ensures satisfied customers. We particularly recommend

ZENOBIA BRILLANTINES.	ZENOBIA TOILET POWDERS.
-/9d. size.....6/9 per doz.	1/3 size.....10/6 per doz.
1/6 „ ... 13/6 „ „	2/9 „ .....24/- „ „
2/6 „ ... 22/6 „ „	-/7½d. Poudre Orientale. 5/6 per doz.

Subject to usual discount.

A complete Catalogue will be forwarded on application to—

ZENOBIA LTD., Loughborough, ENGLAND

Cresp-Martinenq
(Grasse, France),
Manufacturers of
ESSENCES & PRIME
MATERIALS for MANUFACTURING
PERFUMERS,
CONFECTIONERS,
ETC.
SYNTHETICS,
ARTIFICIAL VIOLETS
(MYRIONE),
ARTIFICIAL MUSK.

ENQUIRIES SOLICITED. LARGE STOCKS
ROBERT FERBER, LTD.
98/104 OAKLEY STREET,
LONDON - S.E. 1.
Agents for the UNITED KINGDOM & CANADA.

Lescol Perfumery

NOTICE.

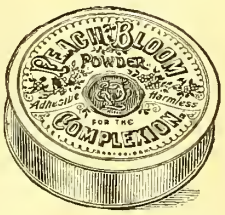
New and attractive lines will be brought out shortly, and an illustrated catalogue sent out. In the meantime we will send on application a supplementary list of lines in stock, popular in price and advantageous in sale.

We can also offer to advantage Perfumery in Bulk in two qualities — Essential Oils of guaranteed purity; Floral Ottos for Cachous, &c.; Fruit and Soluble Essences, Chemicals, &c.

THE LONDON ESSENCE CO., Ltd.
(Proprietors of THE LESCOL PERFUMERY CO.)
Lomond Grove, Camberwell, LONDON, S.E.5.
Telephone: 810 HOP. Telegrams: "VANILLIN, CAMBER, LONDON."

Whitecross Baby Powder

in smartly decorated tins, with sprinkler and dome top.
P.A.T.A. 10½d.; 6/- per doz.



Peach Bloom Face Powder

in various tints.
P.A.T.A. 7½d.;
3/6 per doz.

Whitecross Tooth Powder,

being a first-class article, packed in smartly decorated tins, two sizes, **3/6** and **5/3** per dozen.

The Whitecross Baby Powder and Tooth Powder have both obtained the Certificate of Merit of the Institute of Hygiene. Moreover, all the above being British goods throughout should be supported in preference to foreign make.

Menthol and Menthol & Eucalyptus Snuff, in special decorated tins. On the P.A.T.A. at 4½d.; **2/9** per dozen.

Tooth Paste in collapsible tubes.
All varieties, **5/-** and **6/9** per dozen; also a special new line "**Antiseptic,**" each in carton, **5/3** per dozen.

Lanoline, Oatmeal Cream, Witch Hazel, Antiseptic Honey Jelly, etc., in tubes, 5/- and 6/9 per dozen.

Bay Rhum, Bay Rhum & Cantharides, Brilliantine, Cold Cream, Eau de Quinine, and dozens of other lines in Price List, which will be sent free on application.

Decorated Tins and Plain in variety, all sizes, from 2 dr. upwards. Whitecross Ointment Tins, Vaseline, Fuller's Earth, Violet Powder, Tooth Powder, etc., etc.

Ready Again.—Ointment Tins with buyer's name round edge, and plain centre for labels. Write for particulars.

Special discounts to large buyers.

The CHEMISTS' MANUFACTURING Co. Ltd.
with which is incorporated
SHIRLEY BROS.
Whitecross Works, Rockingham Street, S.E. 1

MOUSLEY'S 'BEAVERPUFF'

Patent Nos. 4931 and 4932.

The Ladies' Natty Friend.

Just out. Demand great.
Delightfully soft in use.
Superior to artificial Puffs.
Write for Prices and Terms

F. A. MOUSLEY
(MAKER)
Priest Bridge, Mortlake,
London, S.W. 14.

BRITISH ODOL

Send for Price List and Trading Terms.

Revised Retail Prices.
Grand Double Flask 5/3
Full-size Bottle 3/-
Half-size Bottle 1/9

ODOL
Chemical Works,
BERKHAMSTED.

C.V. & S. 12.

BOTTLES

are scarce and will be scarcer and dearer soon. Lay in a Stock of Bottled Goods at **PRESENT PRICES.**

VANISHING CREAM, 2-oz. S.C. Jars	78/- per gross		
BRILLIANTINE, 1¼-oz. Corked	45/-	,,	
,, 2½-oz. ,, ...	84/-	,,	
BAY RUM & CANTHARIDINE, 3-oz. Panel	60/-	,,	
,, ,, 8-oz. Round	99/-	,,	
BAY RUM (Spirit) 3-oz. Panel	87/-	,,	7/6 per doz.
,, ,, 6-oz. Mexican	156/-	,,	14/6 ,,
TOILET PARAFFIN, 3-oz. Panel, Corks	57/-	,,	
,, Best Quality, Sprinklers	81/-	,,	
8-oz. MIXTURES, cartoned	95/-	,,	

5% Monthly Account.

CARMOL, Ltd. Washington Street, BIRMINGHAM.

ODOR-O-NO

The Anti-Dress Shield Toilet Water.

Effectively corrects excessive perspiration.

Extensively advertised in American and English periodicals.

SHOWS GOOD PROFIT.

Distributing Agents:

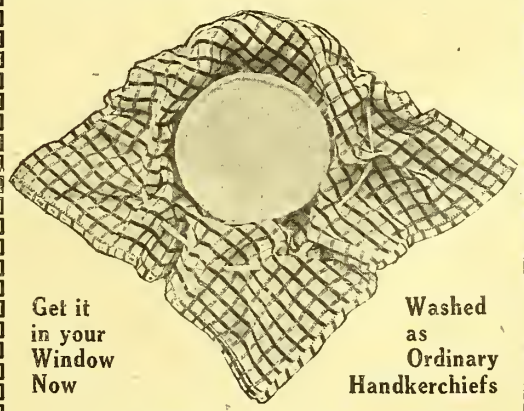
The AMERICAN DRUG SUPPLY CO.
6 Northumberland Avenue,
LONDON, W.C. 2.

Faces Camouflaged

ANYWHERE WITH POWDER AND PUFF

UNNOTICED by OTHERS

The Washable Puff Handkerchief is the latest and most sensible attractive seller of the day.



Get it in your Window Now

Washed as Ordinary Handkerchiefs

QUALITIES—Cotton, Linen, Initial, Jazz and Silk—Selling from about 1/6 to 3/- each.

A Sample 3 dozen assorted will be sent carriage paid for 43/6

ALEXANDER HALL

Powder Puff Manufacturer

523 HIGH ROAD, TOTTENHAM, N.17

IMPORTANT.

TETLOW'S

"SWAN DOWN" FACE POWDER.

Please note that owing to the great loss on American Exchange, we are compelled to advance the price of "SWAN DOWN" FACE POWDER as under:

7/- per dozen. P.A.T.A. Retail Price 10½d. per box.

This price gives a still larger profit to the Retailer.

FULL STOCKS ARE NOW AVAILABLE direct or through your Wholesale Houses.

A larger Advertising Campaign is about to start in all Ladies' and other papers.

HENRY C. QUELCH & CO.

4 & 5 Ludgate Square, LONDON, E.C.4.

For LARGE BUYERS **For SHIPPERS**

Good Toilet Goods

SHAVING STICKS, BRILLIANTINES, DRY SHAMPOO (Liquid and Powder), BAY RUMS, TOILET PARAFFINS, LIME CREAMS, POMADE HONGROISE, TOOTH POWDERS, DENTAL CREAMS, VANISHING CREAMS, SHAMPOO POWDERS, and all TOILET GOODS.

SAMPLES AVAILABLE. **C. A. STOKES & CO., Ltd., 11 Eclipsol Works, BRISTOL.**

"Strodonia" VANISHING CREAM

For displaying a small showcard, we make the following offer on INITIAL DIRECT ORDERS (One parcel only):—

1½ dozen	7½d.	selling for	11 3
¾ "	1/-	" "	9 0
For 10/- cash with order, carriage paid.			20 3

7½d. and 1/- - - - 5/6 and 9/- per dozen.
From London Wholesalers.

Direct Orders value £5 subject to 10% discount and 1 doz. 1/- size bonus for window display, showing 38% on Turnover.

STRODE COSH & PENFOLD, Manufacturing Chemists, LOWER UNION ST., **BRISTOL.**

All Chemists and Stores adjacent to **Theatres** and **Music Halls** should stock the famous

LEROZA Theatrical Cold Cream and Grease Paint Remover.

Used and recommended by all the leading Artistes, including The Two Bobs, Ernie Mayne, Miss Victoria Monks, Shaun Glenville, and scores of others too numerous to mention. Sells at 1/6 per tin box (about 10 oz.) costs 13/3 per dozen carriage paid. **Cash with order.**

From the Sole Inventor and Manufacturer, ARCHIBALD MOLE-FLOYD
The LEROZA THEATRICAL STORES, 71, 73 & 75 Cambridge St., Glasgow.

PERFUMERS ! SHORTAGE OF LABOUR

Advertisers are prepared to undertake the blending of Shampoo, Tooth, and other Toilet Powders, in large or small quantities at lowest possible rates. Good workmanship and prompt delivery. Ingredients supplied if desired at lowest market prices. Write, stating requirements.

MARTIN & CO., 71 City Road, Finsbury, **London, E.C.1.**

To Qualified Pharmacists only

How to add 5½d. to the profit on a bottle of hair lotion

Every week any pharmacist sells a number of hair preparations, many of them giving a very meagre return for his trouble.

A few explanatory words will often make a further and probably more profitable sale without prejudicing the one already made.

Suggest that if scurf or dandruff is present it is probably the root of the trouble, and that the effects of a lotion will probably be enhanced by the occasional use of a penetrating antiseptic shampoo.

Germicidal Soap (McClintock) 2%

is ideal for the purpose. It contains 2% of Mercuric Iodide, and its germicidal effect is increased by its combination with soap. The lather should be well rubbed into the scalp and allowed to remain on the hair for a few minutes before thoroughly rinsing.

Minimum Retail Price 1/3
Minimum Wholesale Price 9/7 net per doz.

Germicidal Soap (McClintock) comes in Part II of the Poisons Schedule, so no signature is needed, only the addition of an address slip.

The Germicidal Soap shampoo may also be confidently recommended for the destruction of parasites. Soldiers abroad found it unequalled for use against lice. Among its many other uses may be named, the removal of odour due to excessive perspiration, protection against infection, the preparation of an antiseptic solution, etc.; and this quite apart from its routine use by doctors and nurses in surgical and obstetric work. Germicidal Soap (McClintock) is worthy of your attention.

PARKE, DAVIS & CO.
50-54 Beak Street, LONDON, W.1.
Laboratories - - Hounslow, Middlesex.

4/- PER DOZ. | ON WINDOW SHOW 43% TERMS—PROFIT. | P.A.T.A. 6d. EACH.

Quin-Quenna

BETTER THAN A SHAMPOO

SOME MOST INTERESTING INFORMATION

Just stick a sticker on a postcard and scribble the following:

C. D. Q. Q. 18 + 3. C. P.

S. W. S

Post, and we will send this wonderful display, 3 × 6 doz. Decorated Show Boxes, *3 doz. Bonus*, and other useful advertising material, *Carriage Paid.* Simple, isn't it?

PUT A SHOW IN YOUR WINDOW THAT WILL PAY THE RENT,

and that's what a "QUIN-QUENNA" Girl Show will do for certain. 2 DOZEN PACKETS A DAY a London Chemist has just told us, and *continuous.* It's the daintiest thing in "simply-put-up-window-ideas" out; put in in three minutes too! Just the "Quin-Quenna" Girl in 5 sepia shades, with swing-back side frames, which, in picture form, convey the message pithily, convincingly and immediately.

THIS WITH THE CONTINUOUS PRESS PUBLICITY MAKES YOUR SALES DOUBLY SURE

The demand from travellers for this "Quin-Quenna" Girl Show is tremendous, and we are doubtful if our supply will satisfy all—still, "First come, first served."

GOES OUT FREE & CARRIAGE PAID AT ONCE WITH EVERY ORDER FOR 18 DOZ. & 3 DOZ. BONUS, ALONG WITH A LOT OF OTHER SHOW MATERIAL.

THOS. CHRISTY & CO.
4/10 Old Swan Lane,
LONDON, E.C.4

OVER 100 % PROFIT ENSURED & PROTECTED (P.A.T.A.)
for sellers of

Laurence's Hair Dyes

One solution, nine shades.

A first-class article with an excellent demand, created entirely on its own merits, and carrying a first-class profit.

Size.	Minimum retail.	Minimum wholesale.	
1/-	1/-	7/6	per doz. less 5% discount.
1/6	1/6	9/-	
2/6	2/6	15/-	
3/6	3/6	21/-	

SPECIAL BONUS

Buyers of 3 doz. bottles receive 3 bottles gratis (may be assorted and any size).
Do. 6 doz. do. 8 bottles gratis.
Do. 12 doz. do 18 bottles gratis.
Equivalent in the case of the size in most general demand, viz. 1/6 size, to 4/6, 12/- and 27/- respectively.

SOLE PROPRIETORS—
C. R. HARKER, STAGG & MORGAN, LTD.
DEVON WHARF,
Emmott Street, Mile End, London, E.1.

"Jackel's Cream"

(without Grease)
for THE HAIR
Sold everywhere

Established 1883.

CRYSTALLISED
1/6 CREAM 2/6
Trade Mark attached to each bottle.

"Jackel's Cream" fixes the hair in any desired position; is unexcelled as a dressing and does not soil the headware. It removes Scurf and Dandruff, keeps the scalp healthy, and promotes the natural growth of the hair while maintaining its softness and brilliancy.

Prices for Wholesale and Export Houses on application.

Jackel et Cie (of Paris) Ltd.
Sauchiehall Street
GLASGOW

Zam-Buk Foot Baths

NOW ADVERTISED ALL OVER GT. BRITAIN AND IRELAND

ORDER A SUPPLY TO-DAY

AND BE PREPARED FOR THE EXTRA DEMAND DURING THE SUMMER WEATHER

C. E. FULFORD, LTD., LEEDS

IRISH AGENTS { Messrs. T. McMullan & Co., Victoria St., BELFAST
Messrs. May, Roberts & Co., Ltd., Westmorland Street, DUBLIN

"Newbery's"
FRANCIS NEWBERY & SONS LTD

"A1" SHAVING CREAM

UNDER ROYAL, NAVAL & MILITARY PATRONAGE.

This High-Class Shaving Cream will appeal to the elite of your Customers.

Add to your Stock a few A1 Shaving Cream and be wise.

18/- per dozen.

CHARTERHOUSE SQUARE, LONDON, E.C. 1.

Your "Special" Shampoo

or Toilet preparation needs a distinctive Block to advertise it in the local newspaper, your leaflets or catalogues. Our Business Bringing Block R277 (4/-) is only one of many which we have for advertising Toilet Goods. A selection of illustrations for advertising Toilet Articles, Remedies, Photographic or Optical Goods will be sent on request. Please state which department you specially wish to advertise.

CHEMISTS' DESIGN SERVICE,
12 Humberstone Gate, LEICESTER.

8½d. HEALTH SALTS 8½d.
¼ lb. decorated lever lid tins,
7/6 per Doz. **85/-** Gross.
Cheques should be made Payable to:
Geo. J. Taylor & Co., Ltd., Manufacturing Druggists, 384 London Road, SHEFFIELD.

The Evan-Williams
Always in Great Demand.
Price List on Application.
The Evan-Williams Co., Ltd., 18, Ogle Street, W.1.
ORIGINAL HENNA SHAMPOO.

POUDRE MALACEINE

MANUFACTURED BY
PARFUMERIE MONPELAS, PARIS.

No. 67, Small ... 25/- doz.
,, 68, Large .... 35/- doz.

An extensive Advertising Campaign in all the principal Society Journals is now proceeding.

Write for SPECIAL TERMS and particulars of other MALACEINE PRODUCTS to the Sole Wholesale Agents for Great Britain and Ireland:

WILLIAM TOOGOOD, LTD.
77 Southwark Street,
LONDON, S.E.1.

STOVAINE

THE LEAST TOXIC OF LOCAL ANÆSTHETICS

USED IN THE SAME WAY AND AS EFFICACIOUS AS COCAINE

Does not create a habit and does not give rise to headaches, nausea, vertigo or syncope. :: :: *Literature on demand.*

NO HOME OFFICE LICENSE REQUIRED

Cheaper than Novocain and Benzocain and obtainable promptly in practically unlimited quantities from the manufacturers:

LES ETABLISSEMENTS POULENC FRÈRES

92, RUE VIEILLE DU TEMPLE, PARIS.

"John Bull"

MALT EXTRACT

IS THE BEST!!!

Wholesale & Export Only.

PAINE & CO., LTD., ST. NEOTS, HUNTS.

NEW PROPRIETARY

BY

DEARBORN, LTD.

37 Gray's Inn Road, W.C. 1

Haraposa NUT OIL

A Liquid Shampoo.

Trade - - - **22/6** per dozen

P.A.T.A. - - **2/6** ,, package

SALES GUARANTEED BY THE MANUFACTURERS. NO RISK.

Order Direct or through your Wholesaler.

Telegrams: "Refreshing, Cent, London." Telephones: Central 4461 & 4462.

R. J. REUTER

Established 1892.

***Head Office:* 69 CARTER LANE, LONDON, E.C.4.**

Factory:
19-20 OLD BAILEY, E.C.

Scientific Glass-Blowing Works:
2 ST. ANN'S CHAMBERS, E.C.

SOLE AGENT FOR

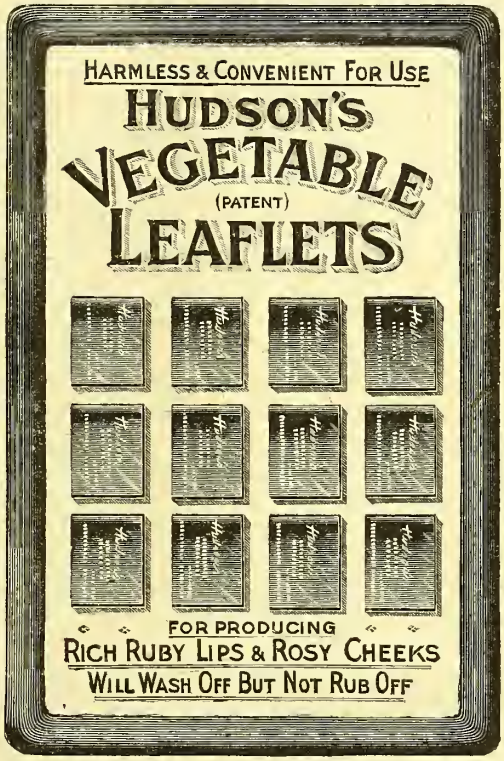
Hudson's Vegetable Leaflets

P.A.T.A. PRICE

6d.
each.

SELL AT SIGHT.

EXPORT:
SPECIAL TERMS.



TRADE PRICE

3/9
doz., subject.

ABSOLUTELY HARMLESS.

MOST WHOLESALE HOUSES SUPPLY.

SENT OUT ON CARDS OF ONE DOZEN.

HUDSON'S VEGETABLE LEAFLETS impart **a perfectly natural tint which cannot be detected,** to the complexion or lips. The rich rosy colour will wash off, but not rub off, and does not become absorbed in the skin.

Issued in booklets with perforated leaves impregnated with a harmless vegetable colouring matter. The most delicate skin is unaffected by their use.

TRADE MARK.

PERFECTUM SERIES

SURGICAL DRESSINGS AND CHEMISTS' SUNDRIES

JUST RECEIVED.

CONSIGNMENTS OF

Tooth Brushes from **4/9** dozen.

Hair Brushes **20/-** dozen.

EARLY INQUIRIES SOLICITED.

WRITE OR PHONE—

ARTHUR BERTON, LTD.,

Manufacturers,

Offices and Warehouse: **15-17 Worship Street, LONDON, E.C. 2.**

Telegrams: "Aybelim, Finsquare, London."

Phones: London Wall 507, City 998.

BIDWELLS' LTD.

RELIABLE TOOTH BRUSHES.

Gloria Silverdrawn,	18/-
Mitre - - -	14/-
Elephant - -	12/-
Anchor - - -	10/-

GROSS LOTS NAMED FREE. CARRIAGE PAID.

We do not Sell Foreign Tooth Brushes.

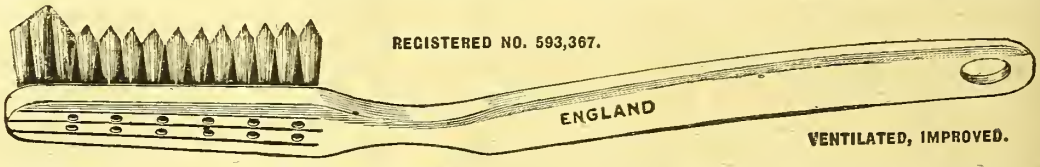
A selected £10 parcel of Hair Brushes from 30/- to 100/- per doz., carr. paid.

Made at our Factories, AXMINSTER, DEVON.

ROBERT ADDIS & SON, — Tooth Brush Manufacturers, — London Brush Works, London Fields, N.E.

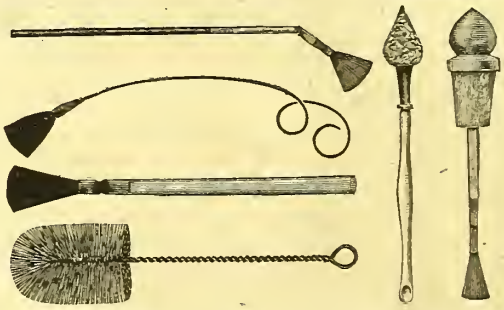
The "ASEPTIC" or "PROPHYLACTIC."

When not in use, a Tooth Brush should not be allowed to remain wet, or it becomes offensive. The advantage of this Brush is—it can be hung up to drain, allowing the air to dry and purify it.



Best Quality	18/- per dozen.	Each in carton.
No. 1	13/6 ,,	,, ,,
Child's Size, Best Quality ...	10/- ,,	,, ,,

To be obtained from Wholesale Houses. Packed in cartons, facilitates sales and ensures brush reaching user in clean and antiseptic condition.



Makers for the Wholesale Trade.

M. J. FECHER, LTD., Ilex Works, Northwold Road, Stoke Newington, N. 16.

DEMAND ALWAYS INCREASING

SoTol

Antiseptic Mouth & Throat Wash
Non-Carbolic Tooth Powder
Tooth Paste

From all Wholesalers or direct from

THE WESTERN DENTAL Mfg. Co., Ltd.

74 Wigmore St., London, W.1.

Laboratories—West Ealing, W. 13.

On the P.A.T.A.

CAMEL HAIR
PENCILS
ALL SIZES

THROAT BRUSHES
Bent or Straight. Wire or Wooden Handles.

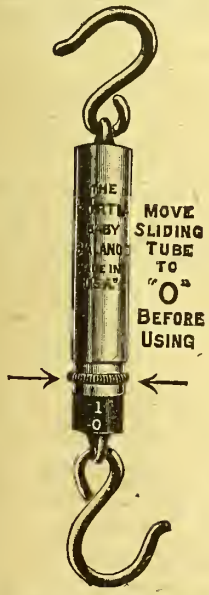
IODINE BRUSHES

SHAVING
BRUSHES
With Boxwood, Metal or Bone Handles.
LARGE VARIETIES ALWAYS IN STOCK.
Also Puffs and Puff Boxes.

Wholesale & Export only supplied.

A. E. DEPRETER,
24 Holborn - LONDON, E.C. 1

Just Arrived.



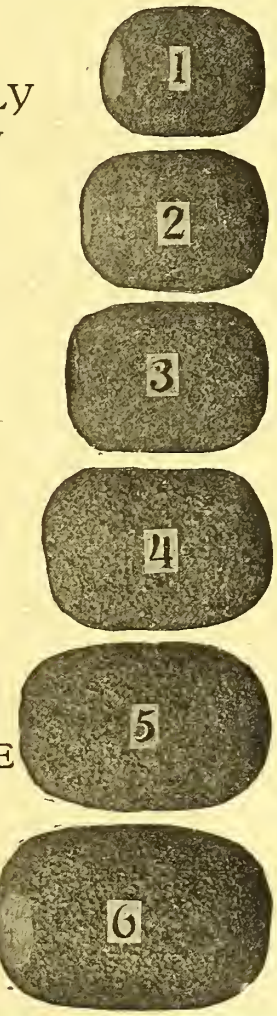
A Limited Consignment of
THE
"PORTIA"
(*Regd.*)
NET WEIGHT
Baby Balance
Weighs up to 15 lb.

Price	Retail
30/-	3/6
dozen.	each.

Owing to restricted imports this line has been off the market for some time, and we think that many friends will be glad of the opportunity of renewing their stock.

SOLPORT BROS., Ltd.
184 to 190 Goswell Rd., London, E.C.1.
Obtainable through all Wholesale Houses.

FEATHEREDGE
Rubber Sponges
LARGE STOCKS ARRIVING



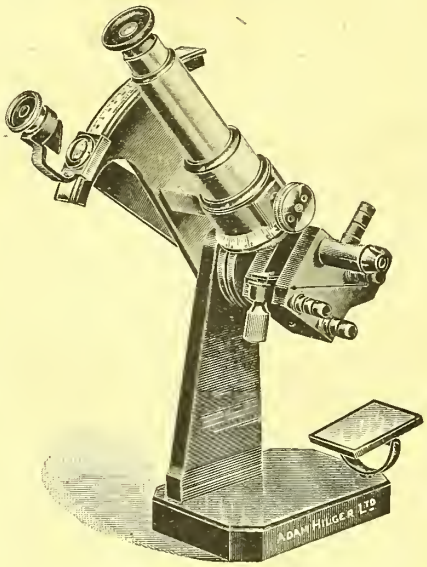
THOROUGHLY
SANITARY
AND
DO NOT
HARDEN

Very
GOOD
PROFITS
for the
Retailer

OBTAINABLE
OF ALL
DRUGGISTS'
SUNDRIES
HOUSES

Markt & Co., London,
—LTD.—
American Merchants,
SOLE IMPORTERS,
98-100 CLERKENWELL RD.,
LONDON, E.C.

THE ABBE REFRACTOMETER



is a valuable aid towards **maintaining uniform strength in pharmaceutical products** (solutions, syrups, etc.), and much quicker than taking the dried weights or specific gravities.

Delivery in four weeks from receipt of order.

Descriptive Booklet post free on application to the Makers:

ADAM HILGER, LTD.

(Department H)

75a CAMDEN ROAD, LONDON, N.W. 1.

Telephone: NORTH 1677—8. Telegrams: "SPHERICITY, PHONE, LONDON."

A LARGE VARIETY OF

XY-LO

SPECTACLE & EYEGLASS WARE

Write for Samples

ELLIOTT OPTICAL COMPANY

(GUY E. DRUIFF, Propr.)

104/5 GT. SAFFRON HILL, LONDON, E.C. 1.

MECHANICAL DENTISTRY

Freeman Bros.

WITHAM - HULL.

'Phone—CENTRAL 1290.

NO BRANCHES

High-Class Work at Moderate Prices

Reliable Staff under Personal Supervision. Punctuality Guaranteed, & Best Materials.

Recently Suppressed

Imitations of 'KEPLER' Products

(Trade Mark)

The Genuine

In the colourable imitations illustrated it will be seen that the characteristic elliptical design consisting of the trade mark 'KEPLER' with ears of barley has been closely imitated.

The Imitations

This design has been a distinguishing feature of the labelling of all 'Kepler' Products since the date of its origination and earliest registration as a British Trade Mark in 1879.

The typographical display of the labels was also so arranged as to create a deceptive similarity between the imitations and the genuine products.

IMITATION is unlawful. We prosecute offenders rigorously, in the interests of prescribers, dispensers, patients and ourselves.

BURROUGHS WELLCOME & CO., LONDON

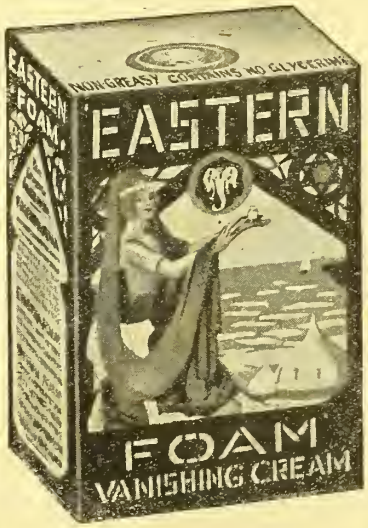
G 873 COPYRIGHT

THE BRITISH DRUG HOUSES LTD.

'EASTERN FOAM'

Our advertisements are now appearing in the principal papers and our anticipation of a greatly increased demand has already been realised.

Notwithstanding the removal of the restrictions upon the output of 'EASTERN FOAM' we constantly receive letters from users complaining of their inability to obtain supplies locally.



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THE CHEMIST AND DRUGGIST

A Weekly Journal of Pharmacy and of the Chemical and Drug Trades.
ESTABLISHED 1859.

The CHEMIST AND DRUGGIST is in circulation and reputation the leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists and Druggists' Society of Ireland, and of many Chemists' Societies in Australia, New Zealand and South Africa.

SUBSCRIPTION RATES.
FIFTEEN SHILLINGS a year payable in advance to any part of the world, including a copy of *The Chemist and Druggist Diary*. Subscriptions may begin with the first issue of any month. Single Copy, 6*d.*; *Diary* 3*s.* 6*d.* post free. Postal orders and cheques should be crossed "Bank of Liverpool and Martin's Ltd."

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Known, Admitted, and Approved Remedies.

Following the practice which we started some years ago we propose to reserve space in the forthcoming issue of *The Chemist and Druggist Diary*, 1920, for the registration of formulas for "known, admitted, and approved remedies." Under the Medicine-Stamp Act, 1812, such medicines, when sold by chemists, are exempt from medicine-stamp duty so long as the formulas are contained in recognised works of reference. A clear indication must also be given on the label of the medicine to the published formula as evidence that the medicine is of the kind to which the exemption refers. *The Chemist and Druggist Diary* was the first book of reference recognised by the Board of Customs and Excise, after the "British Pharmacopœia," and the *Diary*, being published periodically, affords an opportunity for chemists to add any fresh formulas for medicines coming within the definition of "known, admitted, and approved remedies." Chemists who desire to take advantage of this arrangement should forward true copies of the formulas with the titles and directions for use so that we can include these in the *Diary*. We shall attach the correct reference numbers to the formulas when they are published. The formulas, which must be written on one side of the paper only, should be sent as promptly as possible within the next few weeks addressed to the Editor, *C. & D.*, 42 Cannon Street, London, E.C. 4.

Experiences of the Great War.

Contributions to this section are invited.

XIV.—A Glimpse of Italy.

The few months I spent in Italy, in the spring of 1918, were remarkably pleasant and peaceful, and I always regard it as a stroke of good fortune that I was taken ill soon after crossing the Franco-Italian border. Our party consisted of a jolly truck-load of dispensers *en route* for Egypt, and we had had a most interesting journey through France, the tedium of the evening hours being relieved by endless yarns of "shop" and the happy days of old. My disappointment in having to leave such congenial companions was naturally acute, but I consoled myself with the prospect of a closer acquaintance with the land of the Cæsars, and the event quite justified my optimism. I was sent to a hospital at Genoa and spent three weeks in the beautiful "city of palaces," as its inhabitants love to call it. A very fine hotel overlooking the sea had been commandeered by the medical authorities, and life there was a delightful change from that in a jolting cattle-truck. On the landward-side, Genoa is practically hemmed in by a semi-circular range of hills, well wooded, and dotted here and there with picturesque villas. Submarine activities in the Mediterranean had sadly interfered with the shipping trade, and docks and harbour wore a rather neglected aspect. My time here passed almost too quickly—admiring the views from the windows, reading, visualising Genoese scenes from George Eliot's "Daniel Deronda," and taking an occasional afternoon walk into the city.

Eventually I was transferred to a convalescent camp, a few miles out of Genoa, and from there to Arquata, the base for the Italian front. This is a depressing little town, standing on the Scrivia and surrounded by an amphitheatre of hills; the weather was abominable and "King Mud" seemed to dominate the whole place. Here I filled many and various rôles—coal-heaver, ward-scrubber, sanitary-man, bricklayer's labourer, and—last but not least—dispenser in the station hospital. A pharmacist in the Army must be a man of many parts! In a few days' time I was relieved—in more ways than one—by the return from leave of the permanent dispenser, and was drafted to a hospital in Turin. And here I spent the happiest weeks of my sojourn in Italy. The hospital had been fitted up by a wealthy English gentleman residing in the district, and the equipment throughout was ideal. The dispensary was everything my heart could desire—white-enamelled walls and shelves, shop-rounds, glass-topped bench, microscope, and even a centrifuge. The bottles were labelled in Italian, but this gave me little trouble, as the latter of course bears a strong family resemblance to Latin, and it was easy to trace, for example, "Solfo sublimato," "Acido tartarico," and "Solfato di sodico." The poisons were labelled black or red according to their potency, and bore the word "Veleno" and an awe-inspiring death's-head and cross-bones. There was certainly little danger of giving an overdose with such a gruesome picture staring one in the face! I had the great privilege of working with an Italian pharmacist who acted as bacteriologist to the hospital. Like most of his countrymen he was a thorough gentleman and a good linguist; he gave me an insight into Italian pharmacy and was throughout a real friend. Powders are extremely popular with medical men in his country, and consequently chemists have become very expert in wrapping them. My friend was able to finish three to my one, though his method was different from and hardly so neat as that practised at Bloomsbury Square. He produced an almost square package with one end of the paper tucked inside the other end, and he did not weigh out each powder separately in the approved "Qualifying" style. On the whole I think British pharmacy easily holds its own. Turin, or Tarino, is splendidly situated on the swift yet stately river Po, just in sight of the snow-capped Alps. And it gave one a refreshing feeling of coolness merely to gaze at the latter on a sweltering day in May.

Unfortunately I received my marching orders for Egypt after only a month's stay, and had a lonely but interesting

journey through the whole length of Italy to Taranto. I think I never appreciated the English tongue so much before, even the military police at the important stations *en route* being welcomed with open arms! I travelled *vio* Bologna and Ancona, spent a whole day running southwards, with the Adriatic Sea in view for hours, through Foggia to Bari, where an old Italian lady made me welcome for the night, and on to Taranto. It was interesting to notice the gradual transition in architecture, etc., as one goes southwards: in Taranto itself it becomes quite Moorish in character. And the scenery! Well, it was really too much of a good thing, coming all at once, and I look forward to retracing my steps in more leisurely fashion at some future date. SCUTA. 87/15.

English and Welsh News.

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

Contracts.

The following Government contracts were notified during August:

MINISTRY OF MUNITIONS (WAR OFFICE).—*Medicines.*—Boots Pure Drug Co., Ltd.; Borax Consolidated, Ltd.; I. Spencer & Co., Ltd.

INDIA OFFICE.—*Cholera Cases.*—Parke, Davis & Co.

CROWN AGENTS FOR THE COLONIES.—*Soap.*—Isdale & McCallum, Ltd. *Linseed Oil.*—J. L. Seaton & Co.

POST OFFICE.—*Sal Ammoniac.*—Brunner, Mond & Co., Ltd.

H.M. PRISON COMMISSION.—*Drugs and Sundries.*—Baiss Bros. & Co., Ltd. *Soap.*—John Knight, Ltd.; Price's Patent Candle Co., Ltd.

The following tenders have been accepted by the bodies named:

Braintree Guardians.—Mr. H. Jenkins, chemist and druggist, drugs.

Dover Town Council.—The "Sanitas" Co., Ltd., disinfectants.

German Potash Salts.

Considerable importance, from an agricultural point of view, is attached to the fact that the Government has acquired from Germany 40,000 tons of potash salts for use as fertilisers throughout the United Kingdom. The British Potash Company, Ltd., 49 Queen Victoria Street, London, E.C., has been appointed to undertake the sale, under the direction of the Potash Distribution Committee, on which the Board of Trade and the Departments of Agriculture for England, Scotland, and Ireland will be represented, together with representatives of trade interests. The arrangements for the transit of the potash are being energetically pushed forward, and the shipments are confidently expected within the next two or three weeks. The material will then be disposed of in various parts of the country wherever there is a desire shown to take advantage of it. The company anticipates a big demand from farmers and others who recognise that potash salts constitute the best chemical manure obtainable. The following maximum selling prices per ton for lots of not less than four tons have been arranged:

	£	s.	d.
Potash salts, 30 p.c. K_2O	12	10	0
Muriate of potash, 80 p.c. KCl.	20	12	6
Sulphate of potash, 90 p.c. K_2SO_4	23	2	6

Special terms are being offered to the trade, and fixed prices are suggested for small quantities sold by merchants.

Sale of Cream Controlled.

The Cream Order, 1918, the operation of which was suspended on April 12, will become operative again as from September 1, when the sale of cream will be prohibited except for butter-making or for such purposes as the Food Controller may from time to time authorise. Children under five and invalids certified by a doctor to need cream for reasons of health should apply to their local Food Committee (and not to the medical section of the Ministry of Food) for a special permit. The Ministry of Food ask the public to refrain from making applications for cream permits unnecessarily. The directions for obtaining permits were given in detail in the *C. & D.*, December 29, 1917, p. 34.

Profiteering Committees.

The Profiteering Act, which became law on August 19, authorises the Board of Trade to make Orders applying the Act to any article or class of articles declared by the Board to be articles of a kind in common use by the public, or material, machinery, or accessories used in the production of such articles. For this purpose it is proposed to establish three grades of Committees or Tribunals—Central, Local, and Appeal.

Central Committee.—This body will be presided over by Mr. C. A. McCurdy, K.C., M.P., Parliamentary Secretary of the Ministry of Food and Chairman of the Committee on Trusts. The Associated Chambers of Commerce, Associations of Employers, representatives of the co-operative movement, and representatives of employés, including trade unions, are being asked to suggest names of persons suitable for appointment as members of the Committee. The functions of the Central Committee will be to investigate cases of alleged profiteering by persons other than retail traders, and when necessary to institute prosecutions. The Committee will collect information as to prices, costs, and profits, and will study the methods and practices of the various trades or groups of trades, including trusts and trade combinations concerned in the production and distribution of goods to which the Act is applied.

Local Committees.—These will be established by local authorities in England and Wales, the Common Council for the City of London, and the Councils of the Metropolitan and Municipal Boroughs, and of the Urban and Rural districts, and the Council of the Scilly Isles, and in Scotland, the Councils of the County and the Councils of the Royal, Parliamentary, or Police Boroughs. To these the Board of Trade will delegate power to investigate and hear complaints of alleged profiteering on the part of local retailers. It is provided by the Act that the expenses of these Committees will be defrayed by the local authorities out of local funds or rates.

Appeal Tribunals.—These will hear appeals from the decisions of local Committees and will be appointed for each county or groups of counties in England and Wales by the Board of Trade. Chairmen of County Councils in England and Wales are being invited to suggest to the Board of Trade the names of suitable persons for membership of these Tribunals. The Secretary for Scotland is being asked to undertake on behalf of the Board of Trade the formation of Appeal Tribunals for Scotland. The Irish Government is being consulted as to the application of the Act to Ireland.

Research Organisations.

A conference of research organisations was held recently at the Board of Education offices, London, S.W., by the Department of Scientific and Industrial Research, at which Mr. H. Wippell Gadd represented the Drug Club. There were also present representatives of the British Photographic Research Association, the British Scientific Instrument Research Association, the Medical Research Committee, and many other similar organisations. There are already nine Research Associations in being, eight others have been approved, and another twelve are in process of formation. The matters discussed at the conference were the formation of a Records Bureau, the conditions of employment of research workers, co-operation among Research Associations, and subscriptions to Research Associations. It is proposed that the Records Bureau shall be in two sections, one confidential and the other non-confidential, and associations forwarding information would indicate in which section they wished it to be placed. The cost of the bureau would be met out of the annual vote in Parliament.

Birmingham.

There is much heart-burning over the recent Local Associations Executive elections, four of the "old and well-tried pilots" having been turned down for what is

described as "new blood," and the earnest hope is expressed that this will uphold in every way the status of pharmacy.

Commercial travellers find it very difficult to secure sleeping accommodation locally, but they will learn with satisfaction that the chief hotels and offices are being released rapidly. The "Pitman" will be retained, it is feared, some time, for the Fuel Control offices, and the Food Controller still holds the Municipal Art School.

An imposing programme has been arranged for the James Watt centenary celebrations which will be held on September 16, 17, and 18. A memorial service in Handsworth Parish Church, a reception, dinner, lectures, visits to Watt's engines (one of which will be under steam), and a visit to Boulton & Watts' Works, Soho Foundry, are among the items included. It is proposed, as an international memorial, to endow a professorship of engineering, to be known as the James Watt Chair, at the University of Birmingham; to erect a James Watt Memorial Building; and to publish a memorial volume.

Liverpool.

Photographic materials are prominent in several window-displays, and business in this line is said to be good.

Mr. Harold Nixon, a director of Ayrton, Saunders & Co., Ltd., 34 Hanover Street, Liverpool, gave an address last week before the Liverpool Rotary Club on "The Welfare Department of a Business House." Mr. Nixon is the drug-trade representative in the club.

In the suburbs business is rather dull at present owing to many residents being on holiday. In the central area pharmacists are doing a fair amount of business with holiday-makers *en route* to the Isle of Man, and with the increasing number of passengers crossing the Atlantic "ferry."

Nottingham.

Mr. M. W. Chambers, chemist and druggist, manager of Boots' Wheeler Gate branch, has been asked by the Nottingham Labour Party to stand as Labour candidate for Trent Ward at the City Council election in November, but owing to previous arrangements he has been compelled to decline. It is understood, however, that he will allow his name to go forward next year.

There are a hundred and twenty applicants in Nottingham for admission to the Government's scheme of training prospective chemists who had their studies interrupted by the war. Provision has been made at Nottingham University College for eighty students, and, as the classes are announced to start in September, there is considerable anxiety to know who will be admitted.

Sheffield.

Mr. J. Preston, chemist and druggist, Barker's Pool, is displaying an attractive poster in green, black, and white, advertising his dry cleaner.

The question of chemists' hours for Insurance dispensing has been referred by the Panel Committee for consideration by the District Medical Guild.

Boots, Ltd.'s, branch in Duke Street has recently undergone alterations, the front having been extended and a National Insurance dispensary provided.

The final particulars for whole-time students for the University course have not yet been settled, and there is some doubt whether, under the congested conditions now ruling, the part-time student can be provided for.

Those who applied in May for grants for continuing education have not yet been informed of the decision of the Grants Board. It is believed that special panels are to sit in London to deal with the accumulation of pharmaceutical students' claims, so that studies may be started in October.

Miscellaneous.

Sale of Food and Drugs Acts.—In Southwark during 1918 forty-six samples of drugs were analysed, nine being found to be adulterated.

Lift Accident.—A warehouseman named George Wright, employed at Mellin's Food Works, Peckham, fell down the well of a lift on August 22 and was taken to King's College Hospital.

Fire.—An outbreak of fire occurred at the back of Boots, Ltd.'s, Aberavon branch on August 23. Fortunately the discovery was made before any extensive damage was done. The outbreak was due, it is surmised, to the heat generated by the accidental damping of lime.

In the Courts.—At Marylebone Police Court, London, on August 27, William Doyle (20), a chemist's assistant from Germany, was remanded upon a charge of burglary at a house in Haverstock Hill.—Two men, named Philpot and Haggerty, were remanded on August 21 at the Thames Police Court, London, on a charge of unlawful possession of 2 lb. of opium. A detective stated that the opium may be part of a recent theft of 80 lb. from a warehouse.

Irish News.

Brevities.

Mr. Joseph Huban, Ph.C., Athlone, is opening a branch business at Moate, Co. Westmeath.

Mr. J. J. McHenry, Ph.C., Enniskillen, has passed the third examination of the Royal Colleges of Physicians and Surgeons, Ireland.

Mr. P. M. Kavanagh, Ph.C., late manager of Grealy's Medical Hall, Galway, and formerly of Hamilton, Long & Co., Ltd., Dublin, has opened a medical hall at Hugh Street, Galway.

A serious outbreak of fire occurred on August 24 in the premises occupied by Samuel Connor & Sons, chemists, Hill Street, Newry, when damage estimated at 50,000*l.* was caused. Spontaneous combustion is believed to have started the conflagration. Dispensing and the ordinary retail business of the firm are being carried on as usual. The damage is covered by insurance.

At a recent meeting of the Lurgan Board of Guardians a letter was received from Dr. Agnew in regard to the refusal of the Local Government Board to allow recoupment for certain medicines received during the half-year ended September 30. He pointed out that these medicines had been included in the claim for the following half-year by mistake, and had consequently been disallowed. He could not accept liability, therefore, and assumed that the threats of the Guardians to make him personally responsible had been made in error.

Belfast.

Mr. W. E. Rutledge, Ph.C., Ormeau Road, Belfast, has passed the second examination of the Royal Colleges of Physicians and Surgeons, Ireland.

Mr. Andrew Wilson, Ph.C., 185 Albertbridge Road, Belfast, has acquired the adjoining premises, No. 183, for the extension of his manufacturing and dispensing departments.

At a recent meeting of the Council of the Irish Industrial Development Association, Mr. Geo. Van Dyne, for the American Consul, Dublin, wrote that a large New York chemical company was anxious to buy Irish products, and particularly desired to procure good lines of novelties, specialities, chemicals, drugs, pharmaceuticals, oils, waxes, etc. The Secretary reported that he had supplied the necessary information.

In the Irish (King's Bench) Division, in the case of Ellen Stewart *v.* Doig & Co., chemists, 39 Mill Street, Belfast, council for the defendants moved to remit the action to the Recorder of Belfast. The plaintiff, a widow aged upwards of seventy years and residing at Sligo, claims damages from the defendants for personal injuries caused by being knocked down by the defendants' motor-van. Mr. Justice Samuels refused the motion.

Dublin.

Master Henry McNally, eldest son of Mr. Mario McNally, R.D., 8 Redmond's Hill, Dublin, has been awarded the newly-founded Kitchener Scholarship of the value of 170*l.*, tenable for four years at the College of Science, Dublin, *plus* a travelling scholarship of about 50*l.* for four years, which enables him to study modern languages and literature on the Continent. Mr. Mario McNally, who joined the Army in response to Kitchener's call, has just been demobilised, and has received many congratulations on his son's success.

Scottish News.

Brevities.

Mr John M. Mailer, solicitor, Stirling, is the new clerk and treasurer of the Stirling Burgh Insurance Committee.

The revival of the shooting season in Scotland has led to an increased demand for Highland bouquet essences of the "Scottish Heather" type.

The demand for the abolition of Sunday opening increases. Chemists in country towns are said to be the greatest culprits in respect to long hours.

The Shop Hours (Early Closing) Bill, when it becomes law, should prove of inestimable value to chemists, for, unfortunately, there are still some of the old school who have made practically no reduction on pre-war hours.

A Scottish chemist states that, after many weeks' unsuccessful ordering of an article from different wholesalers, he discovered the address of the manufacturer in the *C. & D.* advertisement pages, and hopes soon to satisfy his clients.

Dundee.

Mr. Patrick Geddes, Professor of Botany at St. Andrews University, and an authority on town-planning, has been engaged by the International Zionist Commission to co-operate with Dr. Weizmann, head of the British Zionist Commission, in planning the New Jerusalem and its proposed university.

With regard to the original notice referring to the increasing practice of methylated-spirit drinking, and appealing for stricter control of sales by chemists and others, complaint was made that chemists were receiving unenviable prominence in the announcement and, as a result, in the latest notice, the term "chemist" is merged into the general description "retailers" (*C. & D.*, August 23, p. 43).

Edinburgh.

"Is a venereal powder good for making you sleep?" was a written query pondered over by a local chemist last week.

The average post-war amateur photographer, according to a city dealer, is about the most helpless being at large. "He (and she) cannot do anything without aid," says this critic. "Most of them will not even try to learn how to load their cameras."

Mr. A. Black (Harkness, Beaumont & Co.) skipped the rink that won second prize in the Edinburgh *v.* Leith inter-city match, which was won by the Leith men. Mr. Hardie, also of Harkness, Beaumont & Co., played his annual rink match with the champion of Coltbridge, and ran the latter to six shots for supremacy.

Fife.

Wednesday closing seems about to break down in Fifeshire. In several places chemists are finding that in the public, as well as in their own, interests Wednesday closing cannot be adhered to.

A correspondent writes: "The statement that a qualified locum is giving service for 3*l.* a week" (*C. & D.*, August 16, p. 64) "has been creating considerable amusement in Scottish circles, but then 'it takes a long spoon to sup with a Fifer' and *unqualifid* locums have been known in the 'Kingdom.'"

Glasgow.

A city chemist has a window announcement this week offering free samples of liver-pills.

The shop formerly occupied by Mr. Peter Irvine, Ph.C., St. Vincent Street, Glasgow, is now tenanted by an American soda-fountain concern, and a brisk trade is being done.

The following appointments have been made in the Royal Technical College: Director of the school of chemistry, Dr. Thomas Gray; professor of inorganic and analytical chemistry, Professor F. J. Wilson; professor of organic chemistry, Dr. I. M. Heilbron.

As a result, it is believed, of eating the fruits of *Atropa Belladonna*, which grows in the herb-garden of the Glasgow Botanic Gardens, a boy named John Taylor, aged seven years, has died. Two companions showed symptoms of poisoning, but recovered after receiving medical attention.

French News.

(From the "C. & D." Paris Correspondent.)

M. Desgrez, Professor of Chemistry at the Paris Faculty of Medicine, has been elected a Member of the Academy of Medicine.

Principal Pharmacist Froment is one of two Frenchmen who have been awarded the Roumanian Cross of the Order of Sanitary Merit of the First Class in acknowledgment of services rendered to the Roumanian army.

The Eternal Feminine.—Chemists who look upon the sale of toilet sundries and "beauty products" as a characteristic of the munition age should read Dr. Henri Leclerc, who informs us that before William the Conqueror crossed the Channel the ladies of Salerno had little to learn on the subject. Trotula de Ruggiero, the Italian matron who wrote *De passionibus mulierum medendis*, devotes a chapter to toilet matters: How to keep the complexion pale or rosy; to remove freckles and skin defects; to prepare rouge for the lips; hand creams; tooth-powders and washes; hair-dyes; depilatory products; perfumes, etc.

Analyses of Fuels.—Among the objects analysed by M. Balland during the war were a series of firelighters, fuels, lamps, and odds and ends for heating food, etc., in the trenches. Some results have recently been published. Tablets of sawdust "Agglomérés" contained 60 per cent. of combustible matters. "Solidified alcohol" was a jelly containing 93 per cent. of methylated spirit and 7 per cent. of resin. The "National Firelighter" consisted of bark or twigs soaked in paraffin (84 per cent.). "Solidified paraffin" showed satisfactory results, but the majority of the products hardly accomplished what was claimed for them.

A Competitive Examination was held in Paris in July for three vacancies as hospital pharmacists. The examiners were seven well-known chief pharmacists, with M. Bourquelot as chairman. There were thirteen candidates. Two innovations attracted some attention. For the first time marks were awarded (a maximum of twenty-five) for "titres," *i.e.*, for diplomas or honours already held by the candidate. And as, naturally, most had served in the war, a military document was also drawn up for each, and the examiners could award not over five marks to a man who had a satisfactory army career. (The total marks awarded varied from 75 to 165.) MM. Mascré, Bridel, and Faure obtained the highest number of marks, and were recommended by the examining board to fill the vacancies.

Science Under the Bolsheviks.—The Bolsheviks as patrons of science formed the subject of an interesting address given recently by M. C. Lallemand, at the Academy of Sciences. He had apparently obtained his information from M. Victor Henri, of the Sorbonne, who recently returned from Petrograd and Moscow, where he had been sent by the French Government. In spite of vexations and condemnations, he said, the Russian *savants* are working under satisfactory conditions. New institutes, collections, and museums had been established. New Russia's intellectual centre is the Petrograd Academy of Sciences. The Committee for the study of Russia's resources included twenty-two sections in this city and eleven at Moscow. Among the new establishments is the Chemical Institute, as well as a Platinum Institute, where Russian savants have succeeded in discovering the German secret of the separation of platinum and iridium. Other institutes, founded some months ago, are studying radium, *x*-rays, crystallography, hydrology, etc. New laboratories have been added to the Weights and Measures Institute. The Petrograd Academy has founded a scientific bulletin, of which three numbers have already appeared. It is printed in Russian and in French. The Soviet Government consider science has nothing to do with politics, and is generally liberal to *savants*. Credits demanded for scientific purposes are usually granted, and Russian science had never been so well off. The President of the Academy of Sciences at Petrograd begged M. Henri to insist on the desirability of closer relations between French and Russian scientists. The Bolsheviks are endeavouring to introduce German scientists into the new organisations.

Colonial and Foreign News.

Dearer German Dyes.—The increase of prices for dye-products, which it was forecasted would amount to 50 per cent., has not been uniform, as it is more a question of a regulation of prices, in which there will be great differences in the grading.

Medicaments for Hungary.—The Medical Supply Central intends to promote medicament production by the gradual extension of the existing works, until a large central factory can be established. As a result of the energetic measures undertaken by the Medicinal Plant Central, not only will pharmacists' requirements be covered, but adequate quantities will also be available for export.

The nationalisation of pharmacies in Hungary (*C. & D.*, August 9, p. 47) appears not to have come up to expectations. Business does not yield a profit when practised in this way. From the replies given by State officials and the former owners it appears that already the deficit amounts to 1,000,000 crowns. There are also serious complaints about the indifference and slovenly manner in which the work is done, as contrasted with the methods formerly in vogue.

Salvarsan Patents in U.S.—The Chemical Foundation which owns all the former German patents in the United States for drugs and dyes has begun an action in the District Court of New York to stop the importation by the Anglo-French Drug Co. of salvarsan and neo-salvarsan. The defendants imported the drugs under the names of ampsalvs and supsalvs. This is the first action taken by the Chemical Foundation to protect its rights under the patents acquired from the Custodian of Alien Property.

Enterprise in Trieste.—Since the reunion of Trieste with Italy, a company has been formed under the title of "Istituto Farmacoterapico Triestino," with a capital of 1,250,000 crowns, subscribed by local pharmacists and wholesale druggists. The objects of this Association are to undertake the manufacture of chemical products and medicinal specialities, surgical dressings, etc., to purchase and erect the necessary establishments, to acquire patents, and to protect by patents the products of its own manufacture. The scientific director is Dr. G. Nigris, while the President of the Pharmaceutical Society of Trieste, M. G. Barbich, is the technical and pharmaceutical manager. There will be a scientific staff attached to elaborate and perfect all the resources of modern therapy.

Seychelles Vanilla.—The Curator of the Botanic Station in the island of Mahe, in the course of his annual report, states that vanilla, which at one time formed a large proportion of the exports, continues to decline. The declared value of the amount exported in 1917 was 50,000 rupees, whereas twenty years ago the value of the vanilla crop exceeded 1,000,000 rupees. Four causes for this decline are stated in the report: (1) Reduction of area planted owing to the seven years of drought which lasted from 1904-11, the vanilla orchid being unable to stand such continued dry weather; (2) the increasing interest in coconut planting, which has become of late years a more paying industry than vanilla; (3) disease caused by the *Calospora* fungus; (4) the exhaustion of the soil by repeated culture of vanilla on the same land.

The Höchst Dyeworks.—A recent number of the "Frankfurter Zeitung" announced that, in consequence of coal shortage, a large part of the Höchst dyeworks would be shut down, presumably only for a short time. The pharmaceutical and a few other important departments will continue working. The 1918 report of the Höchst Dyeworks states that so far it has not been possible to restore the production of peace goods to any great extent. In the course of the work of renovating the peace plants it became evident, moreover, that they had suffered so severely—partly from their long inactivity, partly from their war uses—that the amounts hitherto reserved would not suffice for the depreciations effected, and that additional funds must be provided. Apart from the new plant required, the restoration of the business to a peace footing will require considerable expenditure.

Legal Report.

What is Cornflour?—At Lambeth Police Court on August 20 the hearing was resumed of the charge under the Sale of Food and Drugs Acts against Titus Ward & Co., Ltd., for selling to the prejudice of the purchaser cornflour which was not of the nature, substance, and quality of the article demanded (*C. & D.*, August 16, p. 68). A sample of loose cornflour purchased at a shop in Atlantic Road, Brixton, owned by the defendants, was certified by the public analyst to consist of rice starch. Mr. Thorpe, for the Borough Council, contended that cornflour should be the product of maize starch, but Sir Archibald Bodkin, appearing for the defence, sought by his cross-examination of the witnesses to show that the term "cornflour" could not be confined to the starch of maize, and contended that the starch of cereals, of which rice was one, equally satisfied the term, which, he suggested, was just a mere fancy expression. Without calling upon the defence, Mr. Francis (the magistrate) said he could not find any evidence which would justify him in holding that those who sold maize cornflour had any right to appropriate to themselves the right to that name to the exclusion of every other person who chose to sell cornflour made of any other cereal. On that ground alone the prosecution must fail. There was a second point—the prosecution must make out that the sale was to the prejudice of the purchaser. The first witness for the prosecution, Mr. Muter (the public analyst), gave it as his opinion that cornflour should be made of maize, but when tested by cross-examination he said that the nature and quality of pure starch was the same chemically, whether it came from wheat, maize, or rice, and was equally nutritious and equally digestible, although there might possibly be some slight difference in flavour. Some of the witnesses were expert cooks, who said that it would take more rice cornflour to make a blanc-mange of the same consistence as that made with maize. If more rice cornflour were used, these witnesses stated, its nutrition value would be greater. This is obvious, but that does not make it injurious or to the prejudice of the purchaser. Dr. Cassal gave evidence which showed that there were distinctions without any difference really as to digestibility and consistency. He mentioned also what he called "toleration," but it was not clear what he meant by this. He (the magistrate) could not find any evidence to justify him in saying that the sale was to the prejudice of the purchaser. Therefore, on both grounds, the prosecution failed, and the summons must be dismissed. Upon the application of Sir Archibald Bodkin, Mr. Francis ordered the Borough Council to pay the defendants 25 guineas costs.

Bankruptcy Report.

Re Frederick Charles Fawn, chemist and druggist, 348 Gloucester Road, Bristol.—The first meeting of creditors in this matter was held on August 20 at the Official Receiver's Office, 26 Baldwin Street, Bristol, when the debtor was represented by his solicitor, Mr. Henry Dixon. The statement of affairs showed ranking liabilities of 186*l.* 3*s.* 7*d.* and assets expected to produce 158*l.* 15*s.* 1*d.*, the deficiency being ascribed by the debtor to serious illness, loss of business through the closing of munition factories, and pressure by creditors. The debtor states that prior to 1911 he was for thirty-five years in the employ of a large firm of retail chemists in Bristol, being manager of their principal shop for fifteen years. Subsequently he managed a retail shop for the executrix of a deceased chemist in Astley Road, and he purchased his present business for 210*l.* His wife lent him 250*l.* and he had 175*l.* of his own. He received other sums from relations and put the money into the business. On July 28 last he obtained a situation and closed the Gloucester Road shop. He had always considered himself solvent, and had tried to sell the business but without success. In October 1914 he assigned the furniture to his wife in

respect of money advanced. The Receiving Order was made on the debtor's own petition as he was being sued by creditors. The Official Receiver stated at the meeting that the business had been sold at a price approximating to the debtor's estimate, and he hoped to be able to pay a dividend of from 15*s.* to 17*s.* 6*d.* in the £, which no doubt the creditors would consider satisfactory. The matter remains in the hands of the Official Receiver.

New Companies.

P.C. means Private Company and R.O. Registered Office.

X-Rays, Ltd. (P.C.).—Capital, 25,000*l.* Objects: To carry on the business of manufacturers of and dealers in electrical apparatus and other things applicable to *x*-rays, etc. R.O.: 10 Balham Park Road, London, S.W. 12.

Pharmaceuticals, Ltd. (P.C.).—Capital, 1,000*l.* Objects: To carry on the business of manufacturing and wholesale chemists, etc. The directors are Marcel V. Litton and G. G. Pike. R.O.: Berners House, Berners Street, London, W. 1.

Hovey & Lowther, Ltd. (P.C.).—Capital, 10,000*l.* Objects: To take over the business of manufacturers of phosphoric acid powder, used as a substitute for cream of tartar, carried on by J. F. Lowther at the Wheelock Cream Powder Mills, Sandbach, Ches. R.O.: Wheelock Mills, Wheelock, near Sandbach, Ches.

Smallwood (Chemists), Ltd. (P.C.).—Capital, 2,000*l.* Objects: To take over the business of a chemist, druggist, and optician recently carried on by J. W. Golightly at Chapeltown, Pudsey. The first directors are B. Smallwood and Mrs. E. E. Smallwood. R.O.: Scale's Buildings, Chapeltown, Pudsey, Yorks.

A. de St. Dalmas & Co., Ltd. (P.C.).—Capital, 50,000*l.* Objects: To take over the business of manufacturing chemists, plaster makers, and druggists' sundriesmen carried on by A. F. E. de St. Dalmas, W. H. E. de St. Dalmas, and A. F. Cholerton, at 40½ Belgrave Gate, Leicester, as "A. de St. Dalmas & Co." R.O.: Belgrave Gate, Leicester.

John Bussey & Co., Ltd. (P.C.).—Capital, 1,000*l.* Objects: To take over the business carried on at 200 Borough High Street, London, as "John Bussey & Co.," and to carry on the business of cork merchants, agents, manufacturers and specialists, chemists' sundriesmen, etc. Solicitors: Jackson, Elwell & Curran, 65 Coleman Street, London, E.C.

Morgan Ebonite Co., Ltd. (P.C.).—Capital, 30,000*l.* Objects: To carry on the business of manufacturers of rubber, rubber substitutes, and all recovered rubbers and chloride of sulphur, vulcanite, ebonite, and all chemicals used in the manufacture of indiarubber, vulcanite and ebonite goods, etc. R.O.: Empire Works, Oldham Road, Failsworth, near Manchester.

Malco, Ltd. (P.C.).—Capital, 5,000*l.* Objects: To carry on business as manufacturers and merchants of cutting oils or compounds, starch substitutes, hair pomade and similar substances, as chemists, druggists, hairdressers, manufacturers of jam, glue, size, gelatine and similar substances, etc., and to enter into an agreement with W. Mottershead. R.O., 63 Norfolk Street, Sheffield.

Ellerington & Scott, Ltd. (P.C.).—Capital, 23,000*l.* Objects: To carry on the business of wholesale and retail manufacturing chemists and druggists as formerly carried on by J. P. Ellerington and G. H. Scott as "Frizell & Co.," the "Schacht Pharmacal Co.," and "Laroche & Co.," at 1 Cranbourne Street, W.C.; as "Martin & Co.," at 60 Old Compton Street, W.; as "Crowe & Co.," at 31 Wardour Street and 19 Air Street, W.; as "W. Hairsine," at 52 Wardour Street, W.; as "Martin & Co.," at 164 Charing Cross Road, W.C.; and as "Scott, Warner & Co.," the "Leciglobin Co.," and the "Mercolloid Co.," at 55 Fore Street, E.C. The first directors are: J. P. Ellerington, Ivanhoe Hotel, W.C. 2, pharmacist; and G. H. Scott, 7B Clifton Gardens, Maida Vale, W., pharmacist. R.O.: 1 Cranbourne Street, London, W.C. 2.

Personalities.

Sir William Glyn-Jones has been elected the first President of the Southgate University Extension Society.

Mr. Arthur T. Wheeler (Henry Wheeler & Son, 9 Great Tower Street, London, E.C. 3) sails per "Cretic" on September 3 on a business trip to the United States. He expects to be absent for about two months.

Mr. Irving A. Keene (The Keene Company, 52 Gray's Inn Road, London, W.C. 1) left on August 28 for a tour through Germany, Austria, and parts of Russia, representing the American Chamber of Commerce with the support of the American Government.

Mr. J. Macdonald-Moore, D.Sc., managing director of J. Murray & Co., Ltd., 31/33 High Holborn, London, W.C., Bombay, Calcutta, and Madras, who is also a director of the Mysore Pharmaceuticals, Ltd., Bangalore, India, has joined the board of directors of Callender, Easton & Garrod, Ltd., 13 Copthall House, London, E.C.

Mr. Joseph Clegg retired from the staff of Jas. Woolley, Sons & Co., Ltd., wholesale chemists, Victoria Bridge, Manchester, this week after fifty years' continuous service. Mr. Clegg commenced service with Woolleys in 1869 at 69 Market Street, Manchester, this being his first situation after he had served five years' apprenticeship with Mr. Robert Harrison, chemist, Farnworth. He became one of eight assistants who lived over the pharmacy, and after a period in the shop he took charge of the chemical department, which was situated in the warehouse behind the shop. Afterwards he became a representative "on the road," and held the position for thirty-eight years, being one of the best known drug travellers in Lancashire. His many friends wish him long life and happiness in his retirement.

Photo.] [*Cleworth.*
Mr. Joseph Clegg.

Mr. W. H. Saunders (Ayrton, Saunders & Co., Ltd.) having arranged to start on a round-the-world tour on September 2, a *C. & D.* representative called upon him for an interview. In reply to questions, Mr. Saunders said: "Accompanied by my wife I am leaving Liverpool on September 2 for a tour of about eight months' duration. I shall not carry a single sample or sell anything. I am not going out to establish agencies. My tour has the object, apart from recuperation, of re-visiting Canada and the United States, after a thirty years' interval, and of examining there and in countries I have not yet visited the current business methods. Europe I know fairly well, as I have visited all parts of the Continent except Spain, Portugal, and Norway. Russia? Yes, I have been twice in Russia. My route, beginning with Canada and the United States, is to be: Quebec, Montreal, Ottawa, Toronto, Boston, New York, Philadelphia, Washington, Detroit, Chicago, Winnipeg, Vancouver, then right to New Zealand, *via* Honolulu and the Fiji Islands. From New Zealand I go to Australia, thence from Sydney and Brisbane to Japan *via* Thursday Island, Manilla, and Hong Kong, returning from Japan by Shanghai, Hong Kong, Singapore, Colombo, and the Suez Canal, with a stay at Cairo. I want to see for myself the up-to-date conditions of the drug-trade in the cities mentioned, and to study the various aspects of the labour question in different parts of the world." Before taking leave of Mr. Saunders, our representative was conducted through the offices and works. Everyone, from Mr. Saunders downwards, is "clocked" in and out, the filing system is the most modern, and each department kept abreast of the times. The latest innovation is a cup of afternoon tea served by the company, with characteristic expedition, and highly appreciated by the hundreds of hands.

Birth.

Rickeard.—At the Pharmacy, Sanderstead, Surrey, on August 24, the wife of Reginald Rickeard, Ph.C., of a daughter.

Marriages.

Beatton—McArthur. — At St. Mary's Episcopal Church, Port Glasgow, on August 21, by the Rev. Herbert Hall, A. Bayne Beatton, chemist and druggist, Gateshead, Newcastle-on-Tyne, to Sara L. Hamill, fourth daughter of the late Mr. A. McArthur, Port Glasgow.

Jones—Weston.—At Runcorn Parish Church, on August 19, Paymaster-Lieut. T. Lionel Jones, R.N.R., M.B.E., to Melville Louise, only daughter of Mr. J. H. Weston, chemist and druggist, 1 Victoria Road, Runcorn.

Monks—Baron.—At Loughborough Congregational Chapel, Brixton, S.W., on August 19, by the Rev. J. W. Harford, E. Kingsley Monks, chemist and druggist, 106 Coldharbour Lane, London, S.E., to Rose Winnifred, fifth daughter of Mr. Benjamin T. Baron, Brixton.

Deaths.

Harcourt.—At St. Clare, Ryde, Isle of Wight, on August 23, Professor Augustus George Vernon Harcourt, F.R.S., Past President of the Chemical Society, aged eighty-four. He was educated at Harrow and Balliol College, Oxford, studying chemistry under Sir Benjamin Collins Brodie, who was President of the Chemical Society in 1859 and 1860. Professor Vernon Harcourt became Brodie's assistant at Oxford, and as Lee's Reader in Chemistry at Christ Church carried on chemical researches for about forty years. His work was concerned with such questions as the rate of chemical change and mass action. He established the formulæ for potassium and sodium peroxides and studied the oxidising actions of permanganates and hydrogen peroxide, utilising for study in connection with the last-named oxidiser the reaction between hydrogen peroxide and hydrogen iodide. With his co-worker Esson it was established that the rate of chemical change was proportional to the mass of the reacting substances. He also as a Metropolitan Gas Referee studied the means of purifying gas from sulphur compounds, and his sulphur test has been applied recently on the commercial scale at the South Metropolitan Gasworks as a means of purifying gas. Dr. Harcourt devised the pentane lamp as a standard of illumination, and worked out the design of an inhaler which accurately measures the amount of chloroform vapour and air for administration as an anæsthetic. He was elected a Fellow of the Chemical Society in 1859, became a Vice-President in 1873, and President in 1895. His desire to help the nation in its recent struggles against the powers of barbarism was shown in several ways, and it will be remembered that, as a way of economising sugar, he communicated to the Press a method for making in the home a sweetening syrup from beet-roots. The body was cremated at Golder's Green, London, N.W., on August 27, and the ashes were distributed within the grounds of the crematorium.

Pickering.—At Brookside, Catford Hill, London, S.E., on August 23, Mr. Alexander S. Pickering, general produce broker, late of Dunster House, Mincing Lane, E.C., aged sixty-seven. Until his retirement in 1914 the late Mr. Pickering was one of the best-known personalities in Mincing Lane and on 'Change, where his hatless figure distinguished him from his fellows. He was a recognised authority on quicksilver and was the intermediary between the importers, and the wholesale drug and chemical trade and exporters, his turnover in the metal probably being the largest in the City. The business was commenced about 1830 by Mr. Samuel Pickering, and in 1867 Mr. Alex. S. Pickering entered the office, taking over the firm in 1881. His son, Mr. Alex. H. Pickering, now carries on the business at 4 Cullum Street, E.C. The funeral took place at Lewisham Cemetery on August 27, when Messrs. Chas. Mangold, D. S. Paton, Mace, and W. P. Want (Editor of the "British and Colonial Pharmacist") represented the chemical trade.

Smith.—At "Ingleholme," Golders Green, London, N.W., on August 23, Mr. Harry F. Smith, aged forty-seven. Mr. Smith was a partner in Sangers, 258 Euston Road, London, N.W., where he was manager of the counting-house. Entering the firm in 1885 he worked his way up until he was taken into partnership ten years ago. He was interested in music and assisted in founding the Central London Choral Society, of which he was secretary. Mr. Smith was also a member of the Goodfellowship Lodge of Freemasons. The offices and warehouses of the firm were closed for the funeral on August 27.

Smyth.—At a nursing home, Dublin, on August 13, Mary, daughter of Mr. Smyth, Dublin, and sister-in-law of Mr. A. E. Ferris, Ph.C., Ballybofey, Co. Donegal.

Winter.—At Caistor, on August 14, Mr. Chas. Winter, chemist and druggist, aged ninety-two. In 1864 he took over the business which is now conducted as Winter & Ainger, and he retired about ten years ago. He was for many years warden of the parish church.

Died on Service.

Coats.—Reported missing on August 8, 1916, and now presumed to have been killed on that date, Lieut. J. A. H. Coats, Royal Scots, attached 5th Lancashire Fusiliers and 164th Trench Mortar Battery. Lieut. Coats, who was the eldest son of Mr. J. T. Coats, Ph.C., 150 Broughton Street, Edinburgh, and the grandson of the late Mr. William Pinkerton (Pinkerton, Gibson & Co.), had, previous to the war, taken up the study of medicine and had completed his first year. He was a very promising student. The July issue of "Stewarts College Magazine" contains a short biographical note on Lieut. Coats, who was educated at the college, where he was an adept in almost all branches of school sport.

Business Changes.

The chemist's business at 76 Upper Tulse Hill, Brixton, London, S.W., is again closed.

Mr. G. W. Hales, chemist and druggist, F.M.S.C., has commenced business at 48 Princes Street, Ipswich.

Mr. F. Cook, chemist and druggist, 33 Market Place, Warminster, has opened a branch business at Sutton Veny.

Boots, Ltd., are opening at 247 and 249 Kentish Town Road, London, N.W., so soon as the necessary alterations are completed.

Mr. A. E. Bolshaw, chemist and druggist, Hastings, has transferred his business from White Rock to more convenient premises at 7 Claremont, Hastings.

Mr. H. Robinson, chemist and druggist, wine and spirit merchant, has disposed of his business at Browgate, Baildon, Yorks, to his son, Mr. Arthur Robinson, Ph.C.

Mr. W. Holford Meyer, chemist and druggist, has disposed of his business at 98 Colmore Row, Birmingham, to Mr. G. S. Galloway, chemist and druggist, Stoke-on-Trent.

Mr. T. Briggs, chemist and druggist, has purchased the business carried on by Mr. E. Halliday Bedford, chemist and druggist, at Hyde Park Corner, Leeds. [Corrected notice.]

Mr. William W. Banbury, chemist and druggist, has purchased the branch business of J. W. Douglas, Ltd., 73 Newington Butts, London, S.E., of which he has been the manager for some years.

The Baldwin Manufacturing Co., Ltd., manufacturing chemists, are removing, on September 29, to larger offices at 37 Berners Street, London, W. The company's telephone number will then be "Museum 5066."

Pharmacy in the Belgian Army.

The Medical Service of the Belgian Army is very far from being a concrete body of officers and men—like our Royal Army Medical Corps—charged with doing anything and everything for the wounded or sick soldier anywhere or at any time. The *Corps de Santé Militaire* includes medical officers, pharmacists, and veterinary officers. The Medical Service consists of the medical and pharmaceutical officers of this Corps plus the hospital section of the *Bataillon d'Administration.*

Rank and Titles.

In the Belgian Army the position of doctors and pharmacists is very similar to the status they hold in the French Army. Neither medical nor pharmaceutical officers have military titles, and, in consequence, they have not the standing in their Army which long experience has proved in our own and other armies can alone be secured by a military title. The following are the titles held by medical officers in Belgium :

Médecin Inspecteur-General, ranking with Major-General.

Médecin Principal de 1re Classe, ranking with Colonel.

Médecin Principal de 2me Classe, ranking with Lieut.-Colonel.

Médecin de régiment de 1re Classe, ranking with Major.

Médecin de régiment de 2me Classe, ranking with Captain.

Médecin de bataillon de 1re Classe, ranking with Captain.

Médecin de bataillon de 2me Classe, ranking with Lieutenant.

Médecin Adjoint de 1re Classe and *Médecin Adjoint de 2me Classe,* both ranking with Second-Lieutenant.

Readers of my article on Pharmacy in the French Army (*C. & D.*, June 7, p. 50) will note that the historic title of the French *Médecin, viz.,* "Major," is not used in Belgium. The rank of "Major" does not exist in the French Army. The corresponding rank is, of course, *Commandant*; but the term *Monsieur le Major* is universally employed by the French *poilu* in addressing his medical officer. The title is obviously a contraction of the cumbrous French medico-military titles of *Médecin Major* and *Médecin Aide Major,* but takes some getting used to in one's earlier days with a French military formation. During the war it was sometimes replaced by a word of *argot* (*Tout-bib*), as the chief amusement of the *poilus* in the trenches was to invent new words and phrases of *argot.*

Ranks and Titles of Pharmacists.

There are seven grades of pharmacist in the Belgian Army, *viz.* :

Pharmacien en Chef, ranking as Lieutenant-Colonel.

Pharmacien Principal, ranking as Major.

Deuxième Pharmacien de 1re et 2me Classe, both ranking as Captain.

Pharmacien de 3me Classe, ranking as Lieutenant.

Pharmacien de 4me Classe and *Pharmacien Adjoint,* both ranking as Second-Lieutenant.

The proportion of pharmacist to medical officers is about one to four.

Pay.

The rates of pay drawn by pharmacist officers is, as in the Italian Army (*C. & D.*, June 14, p. 64), the pay of their relative rank, as all branches of the Service are paid at the same rates. A *Pharmacien en Chef* draws only 280*l.* per annum, a *Pharmacien Principal* 252*l.*, *Pharmaciens de 1re et 2me Classe* from 168*l.* to 204*l.*, *Pharmacien de 3me Classe* 130*l.* It will be seen that some pharmacists, with merely non-commissioned rank, in our Army are better off financially than their commissioned Belgian *confrères.*

Recruitment of the Medical Service.

There is nothing corresponding to the Royal Army Medical College or the *Val de Grâce* in Belgium, and our R.A.M.C. is replaced by a portion of what is called the *Bataillon d'Administration.* This administrative battalion includes all the administrative service, and three sections of it are known collectively as *Le Service de Secours de l'Armée.* One of these sections is the *Section des Hôpitaux,* and the other two correspond to our Royal Army Veterinary Corps and the Royal Chaplains Department. The *Section des Hôpitaux* is divided into *personnel d'ordre* or permanent administrative officials and *personnel technique* or executive *personnel,* which may be what we would call "regular" or on the reserve. A student of pharmacy or a qualified *Pharmacien* enters the Medical Service by enlisting in the *Section des Hôpitaux,* in which he is graded according to his professional standing. Junior students of pharmacy are graded as *Pharmaciens Aspirants,* and senior students and graduates in pharmacy as *Pharmaciens Auxiliaires.* Both wear the uniform of a *Pharmacien Adjoint,* but without embroidery, lace, or stars. They go through a course of instruction, under a regular pharmaceutical officer, but receive no pay unless they are mobilised or specially employed. *Pharmaciens Auxiliaires* who wish to obtain commissions as *Pharmaciens Adjoints* must pass a special examination when they are graded as *Pharmaciens Suppléants.* Vacancies in the rank of *Pharmacien Adjoint* are filled up from among the *Pharmaciens Suppléants,* who must have graduated in pharmacy at one of the Universities. Instead of proceeding to a permanent commission in the Army, a *Pharmacien Suppléant* may pass to the reserve by applying for *congé illimité,* or permanent leave. The bulk of the leading pharmacists of Belgium were, before the war, *Pharmaciens Suppléants* on permanent leave.

Pharmaceutical Rank and File.

The pharmacy and laboratory attendants of the Service are also recruited from the *Bataillon d'Administration.* Together with the nursing orderlies, they form a small part of the staff of a Belgian military hospital, as the bulk of the administrative work is in the hands of non-medical officers. The management of the hospital is quite distinct from the actual care and treatment of the sick. Not even the medical records of the formation are kept by medical personnel. The medical officer in charge demands such clothing, bedding, and diets as he may require, and what corresponds to a Royal Army Service Corps officer, or subordinate, furnishes him with his requirements and looks after the furnishing, lighting, and cleanliness of every part of the hospital except the actual wards. This system of dual control is in sharp contrast to the arrangements of our own Army, where the R.A.M.C. officer in command is responsible for every detail of its organisation, and where practically all the work of the unit is carried out by medical *personnel.* In order to understand how the pharmacist officer fits into the Belgian fighting machine it is necessary, as in the case of the French and Italian Armies, briefly to glance at the field medical organisation of the Army. The organisation corresponds very closely to that of the French, but the formations have different names. It comprises the following :

(1) The Regimental Medical Service.

(2) *Les Colonnes d'Ambulance,* corresponding to the *Groupes des Brancardiers Divisionnaires* of the French Army.

(3) *Les Hôpitaux Volants,* corresponding to the French ambulances.

Later in the war the official title was dropped, and the term *ambulance* adopted. The Regimental Medical Service is organised on French lines, and each regiment has a little medical hierarchy of its own, directly under the *Colonel du régiment.* The Belgian Regiment has not got a *Pharmacien du régiment* on the staff of the *Médecin du régiment,* as in the French system, but there was a tendency to attach *Pharmaciens* to regiments, as a feature of the Belgian Service is the establishment of *Infirmeries du régiment* for the treatment of trivial cases. One point about all these little regimental hospitals was, throughout the war, a well-equipped and well-organised pharmacy. The *Colonne d'Ambulance* functions exactly like the French *Groupes des Brancardiers Divisionnaires* or the Bearer Division of a British Field Ambulance. There is a

Pharmacien and a *Pharmacien Adjoint* with each unit and, in addition to pharmaceutical duties, the pharmacist officers function as analysts and gas officers in the same manner as their *confrères* in the French *Service de Santé*.

The Field Hospitals.

The *Hôpitaux Volants* in the Belgian Army have each got a *Pharmacien* officer, and usually two *Pharmaciens Suppléants*. As already pointed out, these formations are identical with the French Ambulances and, as in the French Army, there are two with each Division.

For the Pharmaceutical Administration in the field, the Director of Medical Services of a Belgian Army has one *Pharmacien Principal* and one *Pharmacien Suppléant* on his Staff. The *Pharmacien Principal* of the Army is responsible to the Director for the organisation of pharmaceutical services, laboratories, and medical stores throughout the Army area. He carries out inspections on the part of his chief and functions in every way as a senior staff officer at the Army headquarters. The *Pharmacien Suppléant* acts as staff officer to his chief and carries on the duties of the pharmaceutical section of the director's office during the absence on duty of the *Pharmacien Principal*. All base and advanced depôts of medical stores are in the charge of *Pharmaciens*. Indeed the British Army is the only European Army in which the care of medical and surgical material is not in the hands of trained pharmacist officers.

The Red Cross.

As in most other Continental countries, the Red Cross Society of Belgium is very highly organised, and employs a large number of pharmacists. The Society is under a Committee of Direction, appointed by the King, and works in conjunction with the Belgian War Office. Under certain conditions, laid down by the military authorities, a pharmacist can complete the bulk of his military service under the Red Cross. The peace activities of the Belgian Red Cross were not at all comparable with those of other Allied Red Cross Societies such as the *Croce Rossa Italiana*. The Society provides the personnel for ambulance trains and railway rest stations, and organises auxiliary military hospitals of various kinds.

It will be seen that the pharmaceutical service of the little Belgian Army presents some interesting characteristics; that pharmacy holds the status of a profession and its practitioners who are granted commissioned rank hold responsible posts as officers on the Staff.

M.D., L.P.S.I. (87/19.)

Insurance Act Dispensing.

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

Reports from Local Centres.

ENGLAND.

Birmingham.—The Pharmaceutical Committee has issued a notice drawing attention to a resolution, unanimously passed at a meeting on August 19, deploring the apathy of pharmacists generally in important affairs, as evidenced by the results of the recent election of the Local Associations Executive Committee, in which approximately only 35 per cent. recorded their votes.

Lancashire and Cheshire.—The Secretary's report for 1918 of the South-West Lancashire and Cheshire Joint (Prescriptions) Committee has recently been issued. As the number of prescriptions from Wigan is stated to have exceeded 100,000, that committee is entitled to two representatives on the Joint Committee for 1919. The total number of prescriptions priced during the year amounted to 1,773,350, which increase (approximately 200,000 over the preceding year) is ascribed to influenza epidemics and the admission of Chester to the Bureau. The total number of accounts received from chemists during the year was 5,787, representing 1,515,280 scripts. The hope is expressed that the Lancashire Formulary only may soon be used in place of five as at present. Statistical data are prominent in the report, including such subjects as temporary residents; sanatorium benefit; old tariff re-assessment; scrutiny of scripts by Pharmaceutical Society; classification of prescribing; classification of mixtures prescribed; apportionment account; comparison of estimates and general statistics. The following schedule of statistical data relating to the Drug Fund (January to December) is an abstract:

—	Ingred. Price	Dispensing Fees	No. of Prescriptions	No. of Persons	Aver. Ingred. Price	Aver. Disp. Fee
	d.	*d.*			*d.*	*d.*
Birkenhead	356,673	291,907	90,649	41,686	3.93	3.22
Bootle ...	196,689	153,071	46,577	21,392	4.22	3.29
Cheshire ...	2,354,089	1,601,262	486,509	170,181	4.84	3.29
Chester ...	152,985	95,256	28,102	11,957	5.44	3.39
Liverpool...	2,576,610	2,019,538	614,706	229,121	4.19	3.29
St. Helens	307,989	274,625	84,971	31,500	3.62	3.23
Southport	196,478	145,130	43,431	17,715	4.52	3.34
Stockport ..	461,820	441,511	135,772	43,069	3.40	3.25
Wallasey ...	151,672	134,684	39,977	18,431	3.79	3.37
Warrington	311,727	261,573	81,566	22,469	3.82	3.21
Wigan ...	408,945	339,232	104,001	32,294	3.93	3.26

The dispensing-fees for 1918 shown above include the special allowance of 0.75*d.* per prescription (0.3*d.* was allowed in 1916 and 1917).

August Drug Tariff.

The following are the alterations for August in the drug tariff for England and Wales issued by the Ministry of Health:

Lower: Æther, B.P.C., 720, 3*s.* 7*d.* lb.; ammon. heuz. (artificial), 1*s.* 1*d.* oz.; anthem. flor. exot., 2*s.* 10*d.* lb.; argent. proteinat., 2*s.* 2*d.* oz.; caffeina, 3*s.* 8*d.* oz.; caffein. cit., 2*s.* 6*d.* oz.; codeina, 6*s.* 2*d.* dr., codein. phosph., 5*s.* 3*d.* dr.; creosot. carb., 5*s.* 4*d.* oz.; creosotum, 1*s.* 4*d.* oz.; ferri et ammon. cit., 5*s.* 8*d.* lb.; guaiacol carbonas, 3*s.* 4*d.* oz.; opii pulv., 3*s.* oz.; pot. cit., 7*s.* lb.; pot. tart. acid., 3*s.* 1*d.* lb.; sodii et pot. tart., 1*s.* lb.; sodii sulphocarb., 3*s.* lb.; spt. vini meth., 10*s.* gal.; strych. hydrochlor., 9*s.* 3*d.* oz.; tab. acetan. co., B.P.C., 1.53*d.* per doz.; tab. acid. acetylsal. gr. v., 0·76*d.* per doz.; tab. acid. diethylbarb. gr. v., 7.25*d.* per doz.; theobrom. et sod. salic., 2*s.* 2*d.* oz.; tr. opii, 6*s.* 8*d.* lb.; tr. opii ammon., 5*s.* 8*d.* lb.; ung. acid. boric., B.P., 1*s.* 10*d.* lb.; ung. ac. boric. flav., 1*s.* 4*d.* lb.; ung. ac. carbol., 2*s.* 2*d.* lb.; ung. ac. salicyl., 2*s.* 7*d.* lb.; ung. chrysarobin., 3*s.* 4*d.* lb.; ung. glyc. plumbi subacet., 3*s.* 6*d.* lb.; ung. hyd. nit. dil., 2*s.* 8*d.* lb.; ung. hyd. oxid. flav., 2*s.* 7*d.* lb.; ung. hyd. ox. rubr., 3*s.* 4*d.* lb.; ung. paraffin. alb., 2*s.* lb.; ung. paraffin. flav., 1*s.* 5*d.* lb.; ung. sulphuris, 3*s.* 4*d.* lb.; zinci sulphocarb., 3*s.* 4*d.* lb. Picric acid gauze, 21.50*d.* per package. Boric lint, 16.00*d.* per 8-oz. packet. Tow, 8.00*d.* per lb.

Higher: Acid. carbolic. (detached crystals), 2*s.* 2*d.* lb.; acid. carbolic. liq., 1*s.* 10*d.* lb.; ammon. brom., 4*s.* 3*d.* lb.; aq. rosæ, 1*s.* 9*d.* lb.; camphora (flowers), 19*s.* lb.; chlorof. camph., B.P.C., 16*s.* lb.; ext. ergotæ, 11*s.* 6*d.* oz.; ext. ergot. liq., 22*s.* lb.; hydrarg. iod. rubr., 1*s.* 8*d.* oz.; hydrarg. oxid. flav., 11*s.* 6*d.* lb.; hydrarg. perchlor., 10*s.* 4*d.* lb.; hydrarg. subchlor. 11*s.* lb.; hydrargyrum amm., 11*s.* 9*d.* lb.; hydrargyrum c. creta, 4*s.* 2*d.* lb.; hydrargyrum creta, 9*s.* 10*d.* lb.; iodum, 1*s.* 7*d.* oz.; lin. aconit. meth., 3*s.* 10*d.* lb.; lin. camph., 6*s.* 4*d.* lb.; lin. camph. am. meth., 5*s.* 6*d.* lb.; lin. chlorof., 6*s.* 8*d.* lb.; lin. hydrarg., 7*s.* 6*d.* lb.; lin. methyl. sal. co., B.P.C., 9*s.* 6*d.* lb.; lin. sap. meth., 2*s.* 8*d.* lb.; lin. tereb. acet., 4*s.* 3*d.* lb.; liq. mag bicarb., 7*d.* lb.; magnesia levis, 3*s.* 6*d.* lb.; mentbol, 3*s.* 9*d.* oz.; methyl salicylas, 4*s.* 6*d.* lb.; ol. anisi, 7*d.* oz.; ol. caryoph., 17*s.* 3*d.* lb.; ol. lini, 14*s.* 3*d.* gal.; ol. olivæ (sublime), 22*s.* gal.; phenacetin., 1*s.* 10*d.* oz.; podoph. res., 3*s.* 4*d.* oz.; sacc. lact., 2*s.* 10*d.* lb.; santonin, 21*s.* 6*d.* oz.; sodii salicylas (cryst.), 5*s.* 6*d.* lb.; sulphonal, 10*s.* 6*d.* oz.; tab. phenacetin. gr. v., 2.88*d.* per doz.; tr. hyoscyami, 7*s.* 8*d.* lb.; tr. lavand. co., 8*s.* lb.; tr. quin. ammon., 5*s.* 6*d.* lb.; tr. zingib., 7*s.* 8*d.* lb.; tragacanth. pulv., 19*s.* 6*d.* lb.; ung. hydrarg., 6*s.* 8*d.* lb.; ung. hyd. co., 7*s.* 8*d.* lb.; ung. resinæ, 3*s.* 8*d.* lb.; zingiber Jam. pulv., 2*s.* 9*d.* lb. Baudages: Grey open wove, 1 in. by 3 yds., 88*d.*, 2 in. by 4 yds., 2.25*d.*, 2½ in. by 4 yds., 2.79*d.*, 3 in. by 4 yds., 3.33*d.*, 4 in. by 4 yds., 4.46*d.* each. White open wove, 1 in. by 3 yds., 0.96*d.*, 2 in. by 4 yds., 2.42*d.*, 2½ in. by 4 yds., 3.00*d.*, 3 in. by 4 yds., 3.58*d.* each. Plaster of Paris, 3 in. by 6 yds., 10.50*d.* each. Gauzes: Unmedicated, 18.50*d.*, boric, 20.50*d.*, carbolic, 21.00*d.*, cyanide, 21.00*d.*, sal-alembroth, 20.50*d.*, sublimate, 20.50*d.*, iodoform, 36.50*d.* per package. Lint, unmedicated, 1 oz., 3.67*d.*, 2 oz., 6.75*d.*, 4 oz., 13.50*d.*, 8 oz., 23.50*d.*, 1 lb., 45.00*d.* Wool, sal-alembroth, 32.00*d.* per lb.

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The Unjust By-law.

Mr. A. Sidney Campkin, one of the four minority councillors who were the object of a scurrilous attack by the President of the Pharmaceutical Society, does not care to "let bygones be bygones" whilst his character and motives as a public man are in question. He replies to his critics in the following article.

But for the many references thereto in your columns, and the considerable amount of personal correspondence arising therefrom, I should have hesitated to trouble you further at present in connection with the unjust by-law. I do so now as a member of the Council acting independently of the By-law Protest Committee, although in sympathy with their opinions, and certainly in accordance with the opinions of a large majority of the 16,000 chemists qualified under the Pharmacy Act, 1868, or the 9,000 members of the Society, that since the passing of the said Act no unqualified or inexperienced person should be placed upon the Register of Chemists and Druggists.

It is still open to anyone to protest against the methods employed by those acting on behalf of a "so-called majority of the Council" in order to secure, by a by-law, the suspension of a special section in an Act of Parliament, passed in 1868, to secure that

It is expedient for the safety of the public that persons keeping open shop for the retailing, dispensing, or compounding of poisons, and persons known as chemists and druggists, should possess a competent practical knowledge of their business, and to that end that from and after the day herein named all persons should, before commencing such business, be duly examined as to their practical knowledge, and that a Register should be kept as herein provided. . . .

From and after the 31st day of December, 1868, it shall be unlawful for any person to sell or keep open shop for retailing, dispensing, or compounding poisons, or to assume or use the title "chemist and druggist" or chemist or druggist or pharmacist or dispensing chemist or druggist in any part of Great Britain unless such person shall be a pharmaceutical chemist or a chemist and druggist within the meaning of the Act, and be registered under this Act. . . .

As one who has been associated with practical pharmacy for a long period, and as a direct representative of chemists throughout the kingdom, in any action I have taken with regard to this unjust by-law I have acted in a representative capacity and in accordance with the desires and wishes of thousands of qualified persons, from many of whom I have received much appreciation of my action. Chemists are as jealous of their position won at a sacrifice of much time, energy, and money, and attention to detail extending over years, as those in other learned professions, and their position should be as vigilantly guarded. It is worthy of note, as expressed again and again, that not one of the majority has attempted to justify their position or defend the by-law, but on the contrary has expressed dislike thereof as the only course open to secure a vote of confidence or cover the act of a diplomatist official.

The meeting held at the Memorial Hall on July 2 was a spontaneous tribute to the opinions of chemists generally, and but for the action taken by responsible officialdom would have resulted in an overwhelming majority being recorded against the adoption of the by-law. I was one of those who protested at that meeting against the action of the President and his advisers, and I also suggested a referendum. I, with others, had, however, no idea that, if adopted, the referendum would be of so unusual or unwarrantable a character, and that the President would issue a one-sided, scurrilous, and unjustifiable circular at considerable cost to the Society, reflecting upon the motives and character of the four members of the Council who dared to vote in opposition to the by-law.

This notorious circular was read at a so-called "private" meeting of representatives of Pharmaceutical Insurance Committees and local Associations, numbering some 300 persons. Very long speeches were made by the Secretary and another, and then came the President's "speech," a written document of a scurrilous character. Only five minutes was allowed to each of the succeeding speakers, including three present who were the objects of the special attack. This circular, read at a "private" meeting, was subsequently issued with a voting card to over 9,000 members, and so timed that no opportunity was given for a reply.

It is notorious that at the Central Hall meeting many members, while disagreeing entirely with the by-law, voted in its favour because of the threats of resignation mentioned in the circular and the demand for a vote of confidence in the President and his henchmen.

I am still unrepentant, and should still dare to vote in opposition, even though in a minority, knowing still as I do that I am representing a majority of the chemists and pharmacists in the kingdom. The recent efforts to secure a majority against the real interests of the profession and their undoubted rights will probably reap their reward in an unexpected way.

The policy of

> What matter if by valour or deceit
> We overcome, so we the better get,

is not a permanent and all-conquering one. Nor can an attack on the personal character of men who have disinterestedly devoted their time and efforts to the public be justified in the world of ethics or even fair play. I would commend to the authors of the notorious circular the words:

> Who steals my purse steals trash; 'tis something, nothing;
> 'Twas mine, 'tis his, and has been slave to thousands;
> But he who filches from me my good name
> Robs me of that which not enriches him
> And makes me poor indeed.

My efforts as a public man both locally and nationally are open to inspection, and I have no fear as to the verdict of my fellow-townsmen and my fellow-countrymen in all my efforts on their behalf for nearly half a century. When co-opted by the Pharmaceutical Council as one of their members early in 1904, and receiving a request to act from men who were among the pillars of pharmacy in the past, and subsequently re-elected at triennial periods by large majorities and thousands of votes, I can perhaps be content to know that at all events I have never by word or deed betrayed the members' confidence or neglected their interests and demands to which they, as constituents, have a right to claim.

As regards the terrors of an adverse result on the promises of a Governmental Department, so freely quoted by the by-law party, I am also still unrepentant and dubious. The old tag still remains with me as an experience, *Timeo Danaos et dona ferentes*, and I still feel that a Department promising some favour will expect much more in return.

As to the future, I am indifferent personally as to what may be the course adopted by my opponents on this subject. I can, I know, rely upon many friends and supporters in all directions, and would only say in conclusion

That at all events in my going forth I have been mailed with the armour of a pure intent, and though great duties were before me, I have endeavoured to perform them, and whether crowned or crownless if I fall it matters not so long as the work is done.

The monthly meeting of the pharmacists' branch of the Amalgamated Society of Pharmacists, Drug and Chemical Workers was held on August 19 at the Progressive Pharmacy Club, London. Mr. Todd (chairman) asked, on the grounds of ill-health, to be allowed to resign, or, alternatively, that a vice-chairman might be elected to assist with the duties. The members were unanimous in desiring Mr. Todd to retain the chairmanship, and Mr. Whitehead was elected vice-chairman. Further discussion took place regarding the forty-eight hours week, and it was resolved that assistant pharmacists should claim to be included in the legislation shortly to be introduced. Messrs. Todd and Greenfield spoke on the necessity of a central club and meeting-place, and it was resolved that the members should be canvassed on the matter.

Pharmaceutical Specialities in Spain.

For the first time Spain has issued, by a Royal Decree a statute regulating the manufacture and sale of pharmaceutical specialities. In the preamble it is stated that up to the present this subject had been dealt with in an incomplete and fragmentary manner, and that in the interests of public health, as well as in the opinion of the medical and pharmaceutical professions, the necessity of regulating the traffic in this class of articles was urgently felt. To this end the Royal Board of Health studied foreign legislation bearing on this subject, and elaborated a statute, having due regard to the national conditions.

The statute consists of twenty-three articles. Article 1 describes a pharmaceutical speciality within the meaning of the statute as

every medicament of known composition, bearing the name of its author or accepted designation, put up in a uniform package and intended for sale in a pharmacy. Preparations of totally or partially unknown composition, as well as those indicating the composition merely by the statement "prepared from," will be regarded as secret remedies, the sale of which is prohibited.

With the following exceptions, no pharmaceutical speciality may be sold unless it has been registered at the general inspection of the Board of Health, no registration being required in the case of :

1. Preparations made according to official formulas, national or foreign; these must state on the label, wrapping, and in all pamphlets the Pharmacopœia according to which they have been compounded, retaining the pharmacopœial designation without any substitutions or additions to the title.
2. Pharmaceutical forms of presenting a single, non-heroic drug, in fixed doses, which must be distinctly stated, provided that the drug is not designed by a fancy name.
3. Alimentary products and preparations for the hygiene of the skin, hair, teeth, etc., provided they contain no toxic substances and are intended exclusively for use as toilet adjuncts.
4. Preparations made up by pharmacists for sale only in their own pharmacy over the counter; these must comply with the requirements as to labelling, etc.

Manufacturers of a class of speciality, such as tablets, granules, solutions for injection, etc., which comply with the conditions enumerated under 1 and 2 need not register such products. Only qualified pharmacists are allowed to prepare specialities in their own pharmacies, or in laboratories owned by them, and they bear the same responsibility for such preparations as apply to prescriptions compounded by them in a pharmacy. Public bodies entitled to maintain a pharmacy are not allowed to prepare specialities for sale, not even under the name of the responsible manager. If it is proposed to form a company to establish a laboratory for the manufacture of specialities, the special permission of the general inspection of health must be obtained, giving full particulars regarding the proprietors and the specialities to be manufactured. The director and all those engaged in the actual manufacture must be pharmacists.

To obtain the registration of a pharmaceutical speciality, the manufacturer must submit a detailed statement concerning the preparation, and the grounds for marketing it as a speciality, with the speciality itself and models, or proofs, of the label, wrapper, and printed matter relating to the preparation. The applicant will then be informed of the number under which it has been registered, and will receive a statement giving the date of its registration, the name and pharmaceutical class or group under which it has been registered, as well as the authorisation to manufacture and sell it, and whether it is classed as a preparation which may only be sold in a pharmacy.

The preparation must be sold under its registered name, and any alteration in the name, or in the composition of the speciality, or in any particular entered in the register, entails fresh registration. The labels and printed matter relating to the speciality must be in Spanish. A translation, however, is permitted (Article 8 specifies that with foreign specialities sold in Spain in accordance with the provisions of this statute, the language of the country of origin may be retained). These must bear in a perfectly legible and ostensible manner the name of the speciality, that of its originator or manufacturer and his professional status, the laboratory where it is manufactured, the serial number and date of its registration, and its composition. The composition must be stated in all printed matter (this apparently includes advertisements) referring to the speciality. The wrapper must indicate, at least, the name of the speciality, and of its originator or manufacturer, and the serial number and date of its registration. In the case of specialities which may only be sold in a pharmacy, a small distinctive indication must be attached.

Specialities containing very potent drugs may only be sold in pharmacies, while those not containing such may also be sold by druggists, but not in other establishments. To be regarded as very potent drugs within the meaning of this statute are all drugs the maximum initial dose of which ranges from a fraction of a milligram to five centigrams, as well as all those possessing a drastic, antipyretic, emetic, or emmenagogue action, whatever the dose may be. For external use, this definition applies to all drugs having a caustic or irritant action, in addition to the foregoing categories. Specialities consisting exclusively (apart from an inactive vehicle) of one or more substances, to which the above definition of very potent drugs is applicable, may only be sold upon a prescription.

Specialities may only be kept in stock by authorised wholesalers, who are permitted to supply them only to persons entitled to sell them by retail, the penalty being a fine of 250 pesetas for the first infraction of this rule, and 500 pesetas for a further offence. The pharmacist who obtains specialities manufactured clandestinely, or through an unauthorised establishment, is liable to a fine of 100 to 200 pesetas, and the articles will be confiscated. In the case of those specialities which are at present actually on sale in Spain, the manufacturers are allowed a period of two years to comply with the rules of this statute, and during this period these may be sold without being registered. All new specialities not already on the market in Spain must be registered before they can be sold.

Foreign manufacturers of specialities who wish to register their preparations in Spain must submit three packages of the speciality, with the models or proofs of the label, wrapper and printed matter, and all the required particulars, which must comply in all respects with the above-mentioned conditions, to the general inspection of health. The application must be signed by the originator or manufacturer, and the professional status of the applicant must be certified on the back of the application by the sanitary authority competent to do so of the country of origin. From the foregoing it will be apparent that foreign specialities at present sold in Spain may be imported and marketed as heretofore for a period of two years; after this period they must comply with the new regulations. On the other hand, these regulations apply immediately to all new preparations, and those not already on sale in Spain.

The Spanish health authorities are vested with the power of controlling the sale of national and foreign specialities, and to see that the provisions of this statute are rigidly enforced. The Royal National Academy of Medicine will decide on any questions relating to the therapeutic or pharmacological value of specialities submitted for registration. The analyses of specialities will be undertaken in the National Health Institute Alfonso XIII. If a registered speciality is found not to correspond with the published formula, it will be struck off the register, and cannot be registered again by the same manufacturer. It is forbidden to use the fact of registration for advertising purposes. The importation of registered specialities in bulk, not put up in the packages in which they will be retailed in Spain, is permitted.

To facilitate the registration of both national and foreign specialities, Dr. Vallés y Ribó, the editor of "El Restaurador Farmacéutico," has opened an office at 253 Calle Mallorca, Barcelona, which undertakes all the formalities necessary to secure registration.

Principles Governing Medical Practice.

Mr. Thomas Hannah, Amersfoort, Transvaal, has published a book consisting of 279 pages, under the title "Medical Practice in the British Empire," in which he gives an account of the litigation he has had because as an apothecary registered in Natal he practised in the Transvaal, in which province he was not registered. The following chapter from the book is interesting to those who have to consider pharmacy legislation, as being the views of a non-legal person who approaches the subject from a new standpoint:

(*a*) The principle of the Register, and the principles of the Register—namely, "recognition," "exclusion," "erasion," and "restoration" (the fundamental principles governing practice)—are identical throughout the Empire, which make absolute uniformity in legislation possible.

(*b*) The scope and objects of all medical ordinances are to regulate practice; to raise the standard of education; to secure to registered practice certain positive legal privileges (right to sue for fees, give certificates, hold official appointments, etc.); to safeguard professional names or titles from wrongful assumption by either qualified or unqualified, or registered or unregistered practitioners; to protect the public against fraudulent practice in every shape or form—as far as may be—by both registered and unregistered practitioners.

(*c*) Controlling bodies—namely, Medical Councils and Pharmacy Boards—are created for the purposes of administration, and the Register, and the principles of the Register, enable these bodies to exercise adequate discipline.

(*d*) The section of the ordinances covering "fraudulent practice" is the pivot upon which the whole revolves. It is the most vital section. It enumerates the various professional names and titles that it is sought to protect—a practitioner being known only by his degree or diploma, and in no other way—and is so effective that it requires proof of only one act of practice for the infliction of the maximum penalty. It distinguishes one practitioner from another, and enables one to judge the quality, or training, or education of each practitioner. For instance, a "licentiate" or "bachelor" is not yet a "doctor of medicine," which latter degree is the highest possible of attainment by a medico, and therefore highly prized. A pharmacist who has passed his Minor examination is a chemist and druggist, whilst a pharmacist who has passed his Major examination is a "pharmaceutical chemist." Thus, if superior titles are assumed by practitioners possessed of only inferior degrees, every act committed under the title falsely assumed constitutes an act of "fraudulent practice," and it is to safeguard the public as well as practitioners possessing superior degrees from deception and fraud of this description that this legislation is enacted. Since the section covers "fraudulent practice," it is obvious that the offence is "fraudulent practice," and "practice" may be one or more acts. For instance, the assumption of a name or title, and the performance of an act of practice. Thus to prove "practice" one or more acts may be considered necessary. The penalty, therefore, cannot possibly be cumulative, otherwise it would be illimitable, and illimitable penalties are not contemplated in law, for the punishment must fit the crime.

(*e*) The medical, dental, and pharmacy ordinances of the Empire are definite, equitable, and effective, giving no class of practitioner any undue advantage over another, and therefore are all that is desirable; and there is no law extant which defines the functions of the various special callings so as to distinguish the one from the other by the acts committed in the course of practice; and all practise or do or perform the self-same acts or functions, but some acts or functions preponderate in one special calling while others do so in another. The dictum that nothing is unlawful until prohibited in express terms by Act of Parliament is unimpeachable.

(*f*) The science of medicine is one, but divided into four branches—namely, physic, surgery, dentistry, and pharmacy—and these are again sub-divided until we have no less than a score or more of special callings of the practice of medicine.

(*g*) A "licentiate" or "bachelor" or "doctor" of medicine is a physician. A "licentiate" or "bachelor" or "master" of surgery is a surgeon. A "licentiate" in dentistry is a dentist. A "chemist" pure and simple is a scientist. A "druggist" pure and simple is a person who handles drugs. A "chemist and druggist" is an apothecary, and deals in apothecaryware, and practises medicine, of which the chief part is pharmacy. In England the title apothecary and chemist and druggist are distinct, but in South Africa these titles have become consolidated in three out of the four Provinces.

(*h*) Chemists and druggists, dentists, licentiates of medicine and surgery, consist of three classes—namely, students, qualified but unregistered, and qualified and registered practitioners (registered). Neither physicians, surgeons, dentists, nor chemists and druggists are entitled to assume the name or title of any of these special callings until the necessary Qualifying examination shall have been passed, but the Qualifying examination having been passed, the person who has done so may not only assume, but is entitled to do so in spite of not being registered, and he remains what he is for the remainder of his life wherever he may find himself, even though he changes his occupation, for a man's education and training can never be taken from him, just in the same way as an M.A. or a B.A., or any other qualification, is permanent.

(*i*) When a practitioner practises under a name or title falsely assumed, whether qualified and registered or not, he does so fraudulently, which is a criminal offence, punishable by the extreme penalty of the law—namely, a hundred pounds sterling or six months' imprisonment with or without hard labour, usually, unless such fine be sooner paid—since the offence is fraudulent practice, and for such an offence the penalty is not too severe, but it is not cumulative, otherwise the punishment would not fit the crime. For instance, a "licentiate" or "bachelor" is not yet a "doctor of medicine," the latter being the highest medical degree, and therefore highly prized and coveted. Whenever any practitioner affixes the prefix "Dr." to his name he contravenes the section covering "fraudulent practice," unless he is a "doctor of medicine." Courtesy privileges others to address a practitioner as "Dr.," but a practitioner may not style himself so unless he is, otherwise people are led to believe that he is what he is not—namely, a "doctor of medicine"—and so obtain work and patronage which otherwise he may not.

(*j*) A "practitioner" is known by his degree or diploma, and in no other way, and practises or does or performs whatever act or function is necessary to his calling, otherwise his calling would be worthless as a calling.

(*k*) When a "practitioner" has passed his Qualifying examination, he occupies neutral territory, and if he "practises," then he does so neither lawfully nor unlawfully. When he becomes registered he has been formally recognised officially as qualified, and granted the special positive legal privileges mentioned in certain sections. The withholding of these special positive legal privileges constitutes the embargo on unregistered practice, for it practically ostracises a practitioner, and renders it almost impossible for him to earn a living, because it places him before the world in a false light—namely, as a quack and impostor, discredited officially, and disables him not only from obtaining work, but also from enforcing payment in a court of law for services rendered, no matter how faithfully and well done.

(*l*) It is unusual for practitioners qualified by examination to register until they enter into business on their own account, and when they do so it is for the sole purpose to acquire the special positive legal privileges which are essential to the successful conduct of business on their own behalf.

(*m*) Prohibition of unregistered practice is advisable and justifiable in the interests not only of the public, but also of registered practitioners, for the simple reason that registered practitioners, being officially recognised as duly qualified, are not so liable to endanger the health or life of the public, while unqualified persons may be liable to do so, and as registered practitioners have gone to much expense in money and time and effort to acquire the necessary proficiency, it is only reasonable and equitable that they should be enabled to earn a living by means of their profession commensurate with the responsibilities of their position.

(*n*) The "practice of medicine" being a matter of skill pure and simple, a fixed tariff of charges is a matter of impossibility, since one practitioner may be expensive at a shilling fee, while another may be inexpensive at a hundred or a thousand guineas. He who excels is master.

(*o*) The curricula of the various special callings of the profession of medicine, while not yet absolutely uniform, are nevertheless so nearly alike that there is no substantial difference, at all events not so much so as to necessitate withholding of registration from any practitioner on any justifiable grounds. There exists no adequate reason why a uniform curriculum should not be adopted for the Empire.

(*p*) Reciprocity in degrees and diplomas have been the great stumbling-block in medical, dental, and pharmacy practice, and therefore it is essential that the quality of education should be standardised, so that a practitioner having qualified in one part of the Empire shall be eligible for registration in any other part of it, and thus safeguard the liberty of members of the medical, dental, and pharmaceutical professions.

(*q*) The uniformity of interests of the various special callings of the science of medicine is undoubted and self-manifest. The only difference is in the skill. It is only when this fact is fully realised and accepted that harmony shall become possible. When every practitioner realises that it is proficiency that really counts, an effort is bound to be made to excel by every individual member of the profession, with the result that the science of medicine will progress rapidly and attain a height at present little dreamt of; it would fulfil the destiny of a noble calling.

Trade-marks Applied for.

The figures in parentheses refer to the classes in which the marks are grouped.

(*From the "Trade-marks Journal," July 16, 1919.*)

"H & L" monogram in oval device; for all goods (1). By Hind & Lund, Ltd., Edward Street, Preston. 390,119. (Associated.)

"Zapuro"; for all goods (1). By H. W. Hudson, 24 Heyburn Road, Tuebrook, Liverpool. 391,057.

"Upix"; for chemicals (2). By Pinchin, Johnson & Co., Ltd., 26 Bevis Marks, London, E.C. 3. 391,399.

"Cinodora"; for all goods (2). By Ayrton, Saunders & Co., Ltd., 34 Hanover Street, Liverpool. 389,184.

"Kechnicide"; for all goods (2). By McKechnie Bros., Ltd., Rotton Park Street, Birmingham. 390,458.

"Sentol" and "Scentol"; for goods (2). By O. M'Cardell & Co., Oldham Road, Manchester. 390,778. (Associated.)

"Chlorinda"; for all goods (2). By The United Alkali Co., Ltd., Pier Head, Liverpool. 390,858.

"Dugout"; for chemicals (2). By L. Berger & Sons, Ltd., 201 Morning Lane, Homerton, London, E. 9. 391,043.

"Immunitas," "Santox," "Antitox"; for chemicals (2). By The "Sanitas" Co., Ltd., Locksley Street, Limehouse, E. 14. 391,436/438/440.

"Vacuna"; for medicinal chemicals (3). By C. Thompson & Sons, 159 Stratford Road, Birmingham. 388,053.

"Kwikuir" under picture of aeroplane ("Kwikuir" disclaimed): for a cough medicine (3). By A. J. R. Young, 23 Ravenstone Street, Balham, S.W. 12. 388,187.

"Doan's Tonic Tablets," "Doan's Cough Lozenges," "Doan's Eye Salve," all with portrait of Joshua Doan surmounted by device of two wings and an eye, and Chinese characters; for a medicine, cough lozenges, and eye salve (3). "Doan's Tooth Paste" and "Doan's Face Cream," with same device for tooth paste and face cream (48). By Foster McClellan Co., 8 Wells Street, Oxford Street, London, W. 1. 388,623/624/625/626/627. (Associated.)

Aethocaine Brand Anæsthetic; for a local anæsthetic (3). By Naamlooze Vennootschap Nederlandsche Cocaine-fabriek, Heerengracht 543, Amsterdam. 389,240.

"Tussetta"; for all goods (3). By E. N. Heath, 41 Penny Lane, Liverpool. 389,700.

"Trifolia" across leaf device; for medicinal herbs (3). By Slater's, 51-55 Darlington Street, Wigan. 390,859.

"Ascatine Brand Neuralgia and Headache Tablets"; for neuralgia and headache tablets (3). By Axon & Harrison, 17 Regent Street, Rugby. 391,159.

"Raditive," with ray device; for therapeutical preparations (not ointments) (3). By W. J. M. Martin, 25a Whiteladies Road, Bristol. 391,212. (Associated.)

"Deanal"; for all goods (8). By J. R. L. Allnott, Avenue Villa, The Avenue, Kidsgrove, Staffordshire. 390,246.

"Spenwood"; for surgical appliances (11). By G. S. Moulton & Co., Ltd., 77-79 Cannon Street, London, E.C. 4. 388,449. (Associated.)

"Thermorigi"; for clinical thermometers (11). By E. S. Arrighi, 39-40 Bond Street, Brighton. 390,464.

"National"; for goods (47) and for perfumed soap (48). By W. Gossage & Sons, Ltd., Widnes, Lancs. 390,829/30. (Associated.)

"Rotarol"; for all goods (47). By H. M. Wells, Oil Works, Bloom Street, Salford, Manchester. 391,741.

"Medici Tooth Powder," with shield device; for perfumery, etc. (48). By A. Connell, 3 Jewry Street, London, E.C. 3. 389,886.

"Pro Patria"; for perfumery, etc. (48). By The Peace Pillow Co., 17 Manchester Avenue, London, E.C. 1. 391,204.

"Mimi"; for perfumery, etc. (48). By The Crown Perfumery Co., Sidney Road, Homerton, London, E. 9. 391,303.

"Les Iles D'Or"; for perfumery, etc. (48). By The Standard Tablet Co., Ltd., Hove. 391,451.

"Tosca"; for perfumery, etc. (48). By Fassett & Johnson, Ltd., 86 Clerkenwell Road, London, E.C. 1. 391,555.

"Nerissa"; for all goods (48). By Solport Bros., Ltd., 184-190 Goswell Road, London, E.C. 1. 391,592.

"Oyata"; for brushes (50). By Reeves & Sons, Ltd., 18 Ashwin Street, Dalston Junction, London, E. 8. 391,547. (Associated.)

(*From the "Trade-marks Journal," July 23, 1919.*)

"Hydread" and "Brofo"; for all goods (1, 2, 3, 4, 47). "Hydrapol"; for all goods (1, 2, 3, 4). By J. Brown, 10 Dolefield Bridge Street, Manchester. 387,204; 388,788/789/790/791; 387,946; 388,784/785/786/787; 388,792/793/794/795. (Associated.)

Picture of two Chinese boys; for chemicals (1). By A. Ross, 13 Whitechapel, Liverpool. 391,155.

Monogram "N n" on circular device; for all goods (1 and 47) and for polishes and fabric dope (50). By Nicholson's (Newcastle-on-Tyne), Ltd., St. Ann's Chemical Works, Heaton Junction, Newcastle-on-Tyne. 391,305/013/306. (Associated.)

"Esco"; for chemicals (1). By Murphy & Son, Ltd., 2 Dorset Square, London, N.W. 1. 391,624. (Associated.)

"Potatine" and "Rectifly"; for chemical dressings (2). By Hawker & Botwood, Ltd., 50 Mark Lane, London, E.C. 3. 390,846; 390,848. (Associated.)

"Iscol"; for disinfectants, etc. (2). By The Isthmus Size and Chemical Co., Isthmus Road, Folly Hall, Huddersfield. 390,549. (Associated.)

"Bacilikil"; for chemicals (2). By J. P. Conry, 8 Eaton Place, Monkstown, Dublin. 391,488.

"Saw," with picture of same; for chemicals (2), goods (47), and for perfumery, etc. (48). By W. Gossage & Sons, Ltd., Widnes. 391,853/854/855. (Associated.)

"Agrisol"; for a chemical (2). By Major & Co., Ltd., 447 Wincolmlee, Hull. 391,901. (Associated.)

"Kaymol Brand Medicated Inhalant" and device; for an inhalant (3). By S. E. van Blitz and J. Winfield, 819 Fulham Road, London, S.W. 6. 388,526.

"Varenecose"; for lotions, pomades, and blood mixtures (3). By Le Brasseur Surgical Manufacturing Co., Ltd., 90 Worcester Street, Birmingham. 390,010. (Associated.)

"Nutrogen"; for medicinal chemicals (3). By S. H. Clayton, 258 Humberstone Road, Leicester. 391,064.

"Viver Brand Headache Powder"; for headache powder (3). By J. N. Nichols & Co., 203a Chapel Street, Salford, Manchester. 391,324.

"Mother Hubbard"; for beverages (3, 42, and 44). By The Globe Co., Ltd., 200 Commercial Road, Glasgow. 391,369/370/372. (Associated.)

"Octopus"; for surgical dressings, etc. (3) and (11). By T. J. Smith & Nephew, Ltd., 5 Neptune Street, Hull. 391,647/8. (Associated.)

"Gets-It" over device of foot and cock's head in circle; for a corn remedy, etc. (3). By E. Lawrence & Co., 4,300—4,306, Prairie Avenue, Chicago, U.S.A. 391,661.

"Sunsyp"; for goods (42). By A. E. Cook & Co., 4 Borough High Street, London, S.E. 1. 390,876.

"Fiat"; for all goods (42). By Minerva Sociedad Anónima, 5 Mendívil, Málaga, Spain. 391,508.

"Fruidor"; for food substances (42). By E. Bébien, 105 Rue de Rennes, Paris. 391,984.

"Crepine" for goods (47) and for perfumery, etc. (48). By The Arcadian Blouse Co., 5 Corridor Chambers, Market Place, Leicester. 391,373/4. (Associated.)

"Orlis"; for goods (48). By A. M. Evans, 154 Church Lane, Harpurhey, Manchester. 391,167.

"Mavis Talcum Vivaudou" and device ("Vivaudou" disclaimed); for talcum powder (48). By V. F. Vivaudou, 418 West 25th Street, New York. 387,878.

"Phylba"; for vanishing face-creams (48). By W. Smullen, 38b South Richmond Street, Dublin. 391,586.

"Verness"; for goods (48). By The Vernon Laboratories, 3 Portsmouth Street, Lincoln's Inn Fields, London, W.C. 2. 391,814.

"Jolly Miller," with picture of children "Piano" and "Piccolo"; for perfumery, etc (48). By G. W. Goodwin & Son, Ordsall Lane Soap Works, Manchester. 391,685/903/904. (Associated.)

"Thaïs"; for perfumery, etc. (48). By Yardley & Co., Ltd., 105 Carpenter's Road, Stratford, E. 15. 392,207.

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(From the "Trade-marks Journal," July 30, 1919.)

"Kortex"; for all goods (1). By L. C. Firth, 15 Cross Street, Manchester. 390,182. (Associated.)

"Meteco"; for metal-protecting chemicals (1). By The Metal Tempering Products Co., 4 Sugar Loaf Court, Leadenhall Street, E.C. 3. 391,513.

"Janka"; for all goods (1 and 47). By W. Anderson, "Inistore," John Street, Helensburgh, Dumbartonshire. 391,735/6. (Associated.)

"Tampara"; for all goods (1). By H. W. Hudson, Heyburn Road, Tue Brook, Liverpool. 392,414.

"Merry Wives"; for soaps (2 and 3). By Isdale & McCallum, Ltd., Rowan Street, Paisley. 388,903/4. (Associated.)

"Powerex Food Ensures Supremacy" with picture of wrestlers; for a medicated food (3). By H. N. Gilbey, 15 Charlotte Street, Tottenham Court Road, London, W. 1. 387,966. (Associated.)

"Refinolin Brand Petroleum Jelly"; for petroleum jelly, etc. (3). By Westmacott & Son, 77 Cannel Street, Manchester. 388,733. (Associated.)

"Gou-Rheu Brand Medical External Preparation"; for external medicines (3). By W. Hewitt, 221 Lower Richmond Road, Putney, S.W. 15. 390,149.

"Veroid Brand" on circular label device, for medicines (3). By C. Inkster, Ltd., 68 High Street, Sutton. 390,713.

"Laxitea Herbal Tea" and device for herbal tea (3). By T. H. Walton, 2 Upper Road, Batley, Yorks. 391,034.

"Acme" over device of circle and star for medicated soap and glycerin (3), glycerin (4), and for perfumery, etc. (48). By Hazlehurst & Sons, Ltd., 17 Highfield Street, Liverpool. 391,114/5/6. (Associated.)

"Thermosfleece Brand Medicated Cotton Wool"; for medicated cotton wool (3). By T. S. Deakin, The Oaklands, Wood Lane, Timperley, Cheshire. 391,522.

"Prefect"; for medicinal chemicals (3). By W. Collington, The Bank, Sileby, Leicestershire. 392,200.

"Hexavia" and "Octavion"; for binoculars (8). By Negretti & Zambra, 38 Holborn Viaduct, London, E.C. 1. 390,349/655.

"London Made" across device of Nelson Column; for scientific instruments, etc. (8). By Gramophone Components, Ltd., 9 Scrubbs Lane, Willesden, N.W. 10. 392,238.

"Glasigen"; for surgical instruments, etc. (11). By A. W. Brown, 16 Whitehall Park Road, Gunnersbury, London, W. 4. 392,360.

"Snow Mountain"; for cream of tartar substitute (42). By Best & Co., 32 Great St. Helens, London, E.C. 3. 390,606.

Picture of sailor with "Freeman" on cap; for food substances (42). By The Watford Manufacturing Co., Ltd., Watford, Herts. 389,881. (Associated.)

"Korri-Sos"; for all goods (42). By J. Halford & Son, Ltd., 24-28 Goodwin Road, Shepherd's Bush, W. 12. 390,890.

"N n" monogram in circle; for all goods (42). By Nicholsons (Newcastle-on-Tyne), Ltd., St. Ann's Chemical Works, Heaton Junction, Newcastle-on-Tyne. 391,012. (Associated.)

"Vimto"; for mineral waters, etc. (44). By J. N. Nichols & Co., 203A Chapel Street, Salford, Manchester. 389,979.

"King Cole"; for aerated beverages (44). By Mair & Dougall, Ltd., 35-41 Annfield Street, Glasgow. 391,789.

"Alcogas U.S. Industrial Alcohol Co." on shield device; for all goods (47) and for artificial fuels (50). By U.S. Industrial Alcohol Co., 27 William Street, New York, U.S.A. 391,275/6. (Associated.)

"Mars" over picture of warrior. "Mufti"; for perfumery, etc. (48). By C. Thomas & Bros., Ltd., Broad Plain Soap Works, Bristol. 389,995. (Associated.) 391,810. (Associated.)

"Eslu"; for all goods (48). By P. Brown, 186 Mare Street, Hackney, London, E. 8. 391,215.

"Sobano"; for perfumery, etc. (48). By Gerard Bros., Ltd., New Basford, Nottingham. 391,323. (Associated.)

"Poudre Nildé Paris" with picture of girl dressed to represent powder puff and box; for toilet powders (48). By C. Davis, 51 Rue du Rocher, Paris. 390,822. (Associated.)

"Berardian"; for all goods (48). By W. H. Hobbs & Co., Ltd., 1, 2 and 3 Trinity Place, London, E.C. 3. 391,875.

"Grexite"; for toilet creams (48). "Sanolite"; for hair washes, etc. (48). By F. A. Gray, 14th and Oak Streets, Kansas, U.S.A. 391,974; 392,094. (Associated.)

"Pres de Moi," "Poéme de Mai," and "Sahana"; for perfumery, etc. (48). By Yardley & Co., Ltd., Carpenter's Road, Stratford, E. 15. 392,205/208/448.

Trade Notes.

Puff Handkerchiefs.—Mr. Alexander Hall, powder-puff manufacturer, 523 High Road, Tottenham, London, N., offers a novelty in a washable combined puff and handkerchief.

Pears' Golden Series.—A golden tray for displaying Pears' "Golden Series" of toilet requisites is shown in the advertisement of A. & F. Pears, Ltd., 71-75 New Oxford Street, London, W.C. 1.

Potter & Moore's Lavender Water.—The new prices, wholesale and retail, for Potter & Moore's lavender water are given in the advertisement in this issue of W. J. Bush & Co., Ltd., Ash Grove, Hackney, London, E. 8.

Raymet Pen.—Raymet & Co., Ltd., 507-509 Harrow Road, London, W. 10, call attention to the fact that the offer of a 14-ct. gold-nib fountain-pen to purchasers of Raymet shampoos remains good up to September 6.

Bates' Flexible Nail Files are again obtainable owing to the removal of restrictions on imports. Henry C. Quelch & Co., 4 and 5 Ludgate Square, London, E.C. 4, give the prices in their announcement in this issue.

Bottle-capping Skins.—Mr. Robert Rawley, Harcourt House, 149 Gray's Inn Road, London, W.C. 1, asks perfumers and other users to write to him for samples and particulars of opaque and transparent capping-skins.

Lysol Prices.—The retail prices of Marshall's "L" brand Lysol have been raised to 1*s.*, 1*s.* 9*d.*, 3*s.*, and 5*s.* per bottle and 12*s.* 6*d.* per drum. The wholesale prices are given in the advertisement of Lysol, Ltd., Stratford, London, E. 15.

Wright's Soap.—The new retail price of Wright's coal-tar soap is 7*d.* per tablet. The wholesale and retail prices of the other coal-tar preparations are also given in the advertisement in this issue of Wright, Layman & Umney, Ltd., Southwark, London, S.E. 1.

Swan-down Face Powder.—The retail-price of Tetlow's swan-down face-powder is now 10½*d.* per box, the change in price having been brought about by the state of the American exchange. The profit to the retailer has been increased in the new wholesale terms.

Pocket Batteries.—The coal shortage will probably result in a large demand this winter for pocket electric lamps. Millard Bros., Ltd., 123 Houndsditch, London, E.C., give particulars in this issue of the spare batteries which they supply under guarantee as to keeping qualities.

Napper & Davenport, manufacturers of aluminium articles, 7-11 St. George's Place, Birmingham, are now in a position to accept orders for spun, pierced or pressed aluminium boxes or similar articles. The firm had in hand at one time orders for something like their output, but by installing new plant arrears have been overtaken and fresh orders can be filled promptly.

Information Department.

INFORMATION WANTED.

2/38. "Cæmentium."
3/41. "Lysaldol."
254/37. Taylor's Razor Paste.
4/51. Laroche Liver and Kidney Salt.

INFORMATION SUPPLIED.

"Ashes of Roses" face powder, 4/9
Barratt's Sheep Dip 259/15
Chinosol Co., address, 4/52
Corpus Luteum tablets, 258/27
"Cutex" specialties, 256/3
"Cystopurin," 2/56
"Daisy" fly killers, 259/46
Dorin's preparations, 259/46
Eade's Gout Pills, 259/46
"Enterprise" drug mill, 259/14
Esanofele, 2/56
Forhan's tooth paste, 258/31
Gellé frères specialties (agents), 249/25
"Gets-It" corn remedy, 251/37
Grains de Vals, 259/46
"Hernicura" truss, 4/37
Hayman's balsam of horehound, 251/39
Mason Pearson's Hair Brushes, 242/39
Rangoon Oil, 241/9
Rubber Sponges (American), 245/31
Salvarsan, 252/51
"Stomalix," 257/62
"Tanglefoot" fly paper, 258/67
Thermos flask, 4/29
Walker's Disinfectant Blockettes, 253/27
Winslow's Soothing Syrup, 250/7

Observations and Reflections.

By Xrayser II.

The L.A.F. Election Result

is gratifying not only on account of the rejection of five out of nine "wrecker" members of the Council, but by reason of the stalwart quality of some of the men who replace them. The most notable feature of the election is the return of Messrs. Figg and Cherry in place of Messrs. Keall and Jenkin. Compared with this even the double defeat of Mr. Gifford is of second-rate importance, for Mr. Gifford is only one man and somewhat of a "back number" at that. We shall hope to see in Figg and Cherry not only the first fruits of our new opposition (I really did not intend any pun here), but a substantial addition to the progressive element in the Council before many months are out. Mr. Figg's vigorous and persistent opposition to the by-law in your columns is of itself sufficient to ensure him any position in the society which he may seek at the hands of the electorate. As for our policy, as progressives, towards the Council, I should also like to refer to the good points of several other new members of the Committee, but will content myself with mentioning that the addition of Mr. Harold E. Matthews, of Clifton, is a splendid gain. I hope he will become a Council candidate next May.

That Bygones should be Bygones

is a good rule of social morality, but in politics it must be accepted with reservation. Personal feeling, however excusable in the stress of conflict, should be allowed to die when the fight is over, but the cause for which we have fought, and the principles that have animated us, remain, and to forget them would be no virtue, but a crime. We may go further; since we have to deal with the same persons still, we may legitimately remember their behaviour in the conduct of previous affairs, their tricks, subterfuges, suppression of facts, inaccuracies of statement (not to put too fine a point upon it), their subterranean diplomacy—in short, all the arts and artifices by which their victory was won. It has been called a pyrrhic victory, but it will only prove such if we do remember these things; it is only through our resentment of their tactics and our consequent determination to overthrow their power that their apparent victory can be turned into a real defeat. They have forfeited our confidence: we must withhold it. They have trampled upon our rights: we must uphold them. They have treated us as incapables: we must show them that we can at least turn them out of office. They have complained that we are an organised opposition: we must make good their words by becoming one. We will forget their bad words and worse manners, but there are more important things than these that we must remember: we must above all things remember to be masters in our own house.

The Admirable Letter

of Mr. J. Ross Henderson in your issue of last week is the final word. His ten points include all we need to ensure our release from the incubus that has so long sat upon us, and he places them in the order of their importance. Let me beg every pharmacist who has the welfare of the craft at heart to bear them in mind: No secrecy in official activity; a Secretary who knows his own place, and keeps it; a President who confers dignity upon the chair and Society; no political trickery; no dummies on the Council; these five points secured the rest would follow as the night the day. The election just over proves that they are well within our reach if only we will be true to ourselves.

The Regulations

under the by-laws relating to the examinations will, as we were officially notified a fortnight ago, be published shortly in pamphlet form. I hope they will be more lucidly expressed—I might, indeed, say more correctly expressed—than they and the remarks upon them were in the preliminary announcement in the "P.J." to which I refer. What Sir Arthur Quiller-Couch calls jargon is so common in official English that it would perhaps be unreasonable to cavil at such phrases as "exercises set *in connection with* the Practical Chemistry Competition," but such a positively ungrammatical sentence as, "But experience enlightened and regulated by scientific knowledge and method have evolved a set of rules and technique which are generally but not universally valid," ought not to occur in any educational announcement, and it is questionable whether when it is said that a candidate may be able to "show cause for the knowledge that ought to be in him" the meaning is exactly what the words, taken literally, convey. The wording of the Regulations themselves is occasionally questionable: "he has been trained . . . for 4,000 hours, which training *shall be* spread over a period of not less than two years and must have been spent," etc., is an instance; surely the words I have italicised are wrong; what is meant is that these hours *must have been* spread over two years: if that tense is proper in the preceding and succeeding clauses of the sentence it is required there too.

The Wages Question

is one of the most serious of the many problems that confront us, and it is made the more so by the Government's proposals for the regulation of the hours of work as indicated in the Bill introduced in the House of Commons by Sir Robert Horne. This Bill will, apparently, affect pharmacists as employers of labour equally with other tradesmen; and so, too, apparently, will the second Bill introduced by the same Minister for fixing minimum rates of wages. Taken in connection with the National Union of Shop Assistants' demands for rates in advance of the national scale, these Bills foreshadow changes in the conditions of all employed labour which will inevitably necessitate a raising of the price of most commodities, drugs among the rest. In our own trade, certainly, such prices as are now demanded for labour cannot be paid out of such "profits" as we now get, and the public generally will probably soon be awakened to the fact that a good deal of what has been called profiteering is due to labour's quite proper determination to secure for itself better conditions than it has hitherto enjoyed. Unfortunately, it is by no means certain that those consumers who have been loudest in advocating labour's claim will be prepared to pay the piper, though they have called the tune. They will have to do it, however; if the labourer's standard of living is to be raised at their instance, it is only right that they should contribute to the expense. They will have to submit to higher prices all round, and we chemists must advance ours or suffer both as consumers and as producers.

Your Correspondent,

"Second Attempt," calls attention to a point, the importance of which is made apparent by your article on "System in Study and Training." The point is this, that under the new regulations for the Qualifying examination only two years (4,000 hours) of actual shop-work are required of candidates for registration as chemists and druggists. "Second Attempt" says this is not enough, and I emphatically agree with him. Men with no more qualification for actual business than this comprises will not be half so competent as assistants, and by parity of reasoning, not half so competent as men of business on their own account as those who were properly trained under the old apprenticeship system. I say "not half" because, though they may have had half as much shop work as the others had, their minds will not be as thoroughly given to it, and from the first they will be under the temptation to despise it. The writer of your article says they will probably be paid for their shop service instead of paying for being trained for it, as they formerly were. Why? If they pay fees for scientific tuition, why not for practical training too? It is at least of equal value to them, and their service will have, for two years, very little value.

Newfoundland Cod-liver Oil.—The exports in 1918 amounted to 321,969 gallons; compared with 26,218 gallons in 1914.

"SANITAS"
DISINFECTANTS
FLUIDS, POWDERS, SOAPS & FUMIGATORS
Should be supplied by all Chemists.
THE "SANITAS" CO., Ltd., Limehouse, LONDON, E. 14.

DAINTY—ALLURING—UNIQUE
LES PARFUMS DE ROSINE
Publicity commences this week and will increase as Xmas approaches. Booklet with coloured illustrations willingly sent on request. All orders can be executed from stock.
Sole British agents: Telephone: City 8200.
W. H. CALNAN, 30-32 Ludgate Hill, LONDON, E.C. 4.

S.V.R. — S.V.M.
AND
CHEMISTS' WINES.
Jas. Burrough Ltd. Dr. Lee Distillery, Hatton Rd. LAMBETH, S.E. 11.

NOTICE
The continued increase in the cost of all raw material, and particularly in bottles, tins, fuel and labour, make it necessary to increase the prices for MARSHALL'S "L" BRAND LYSOL if the quality is to be maintained.
On September 1, therefore, the following new prices will take effect:

	WHOLESALE.	M.R.P.
4-oz. bottles ...	8 - per doz.	1 - per bott.
8-oz. ,, ...	14 - ,,	1 9 ,,
16-oz. ,, ...	24 - ,,	3 - ,,
32-oz. ,, ...	40 - ,,	5 - ,,
1-gall. drums	114 - ,,	12 6 per drum

All goods despatched up to August 29 will be invoiced at current rates. All unexecuted orders in hand on that date will be regarded as confirmed at the new rates unless specifically cancelled by September 6. No confirmation of orders is needed. It is to be noted the new prices provide the same rates of profit as the old prices. A supply of gummed labels for affixing on stock will be supplied upon request.
LYSOL LTD., STRATFORD, E. 15

HARD SOAPS, TRIPLE MILLED TOILET SOAPS, TRANSPARENT SOAPS, PARAFFIN AND WAX CANDLES, NIGHT LIGHTS, Etc.
THE MILLBAY SOAP AND NEW PATENT CANDLE CO., LTD., PLYMOUTH,
HAVE A WORLD-WIDE REPUTATION FOR ABOVE.
WRITE DIRECT FOR PRICE LIST or for London and District, to
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AND
Aromatic Chemicals
W. KAUMANN, 49 Charterhouse Sq., London, E.C. 1.

Fletchers' Concentrated Liquors
FOR TINCTURES.
For Proprietary Preparations no dilution with Spirit is necessary, thus effecting an enormous saving in cost, without any sacrifice of efficiency.

Order Again!
IT will pay to repeat your order for
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LIQUID PARAFFIN
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QUALITY — The oil has a higher viscosity than any other on the market and passes all tests, including the cold test.
UNIFORMITY — Precisely the same faultless oil is supplied to each order.
PROMPTNESS — *Immediate Delivery* is given, large stocks being carried.
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Samples and Prices on request.
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Editorial Articles.

The Finance Act, 1919, in Operation.

We dealt in the *C. & D.* of May 10 (p. 61) with increases in duties on articles of interest to chemists imposed by the Finance Act 1919, then in course of passing through Parliament. Detailed regulations have now been made by the Commissioners of Customs and Excise for giving effect to the special feature of the Act—the introduction into our fiscal system of a preference for goods consigned from and grown, produced, or manufactured in the British Empire. With the exception of spirits, the preference takes the form of allowing the goods to be cleared for home consumption at a fraction of the full rate, varying from five-sixths in the case of such goods as sugar and saccharin to 50 per cent. of the rate of the additional duty levied on still wine in bottle. In the case of spirits, the preference is given by way of increase in the duties on non-Empire spirits. The preferential rates will be the final rates as chargeable under the Finance Act, 1919, and the duties on non-Empire spirits are to be increased by 4*s.* per gallon on perfumed spirits, by 5*s.* 4*d.* per gallon on liqueurs, cordials, and other preparations not to be tested for strength, and 2*s.* 6*d.* per proof gallon on all other descriptions of spirits. The new rates are to come into force on September 1, except in the case of tea, to which the rate has applied since June 2. This applies to Empire products delivered from bond for home consumption after that date, although imported before

September 1. In the case of goods imported, it rests with the importer to prove that they are entitled to be treated for duty as the preferential rate applicable. The part from which they are consigned is to be proved by production of the bill of lading or invoice, and the origin will normally be allowed to be Empire only where this is substantiated by a certificate of origin. The difficult question of what articles are to be regarded as manufactures has been settled by stating the following as manufactured, and classifying all other goods as being grown or produce:—

Refined sugar.
Manufactured goods containing sugar in bulk.
Manufactured goods containing spirits—e.g., pomades, vanilla, dyes, etc.
Glucose.
Spent molasses, and other extracts of sugar.
Saccharin.
Manufactured tobacco.
Chemically pure lime.
Musical-box parts, accessories, etc.
Musical instruments, parts, accessories, etc.
Clocks, watches, etc.

Where goods are manufactured, they are to get the benefit of the preferential rate only in cases where a prescribed proportion of the factory or works cost to the manufacturer is due to labour within the British Empire. This has been fixed at 25 per cent. for all manufactured goods except manufactured tobacco, refined sugar, spent molasses and other products of the refining of raw sugar. In the case of these the proportion of Empire labour required has been fixed at 5 per cent. But the preference rate can only be claimed in respect of such proportion of the finished article as can be shown to correspond to the proportion of Empire-grown taxable material used in its manufacture. Special provision is made for goods passing from a part of the Empire where the duties are not intended for sale as merchandise and do not exceed 10/- in value. It may be expected that the strictly literal reading of the new law will demand a good deal of tact and judgment on the part of the Customs officials of our parts. The experience gained in examining the war in letting war goods of suspected enemy origin seems to prove useful to them in dealing with Customs claims for preferential treatment for goods imported. The Commissioners of Customs and Excise have issued a notice dealing with the above, in which the term "British Empire" is defined, and particulars are given as to how the preferential rate of duty is to be claimed. Preference, as will be noted, may be claimed in manufactured goods containing spirit—e.g., pomades, cosmetics, dyes, etc.

The Cellulose Acetate Inquiry.

Our readers will recall that in our issue of August 3, 1918, we commented on a Report to the Seven Committee on Nitrate Expenditure which mentioned amongst other transactions in connection with the supply of cellulose acetate as "large" for munitions purposes. As a result of this Report an Inquiry Committee was appointed by the then Chancellor of the Exchequer to inquire into and report upon the formation and financial arrangements of the British Cellulose and Chemical Manufacturing Company, Ltd., and associated companies, and upon their relations with Departments of the Government. The Report of this Inquiry Committee, consisting of Lords Sumner, Inchcape, and Cowdray, which was appointed in October 1916, has only just been issued. Seventeen sittings were held and thirty-two witnesses were examined, one of the principal reasons given for the delay in the production of the Report being the fact that the Committee could not secure the attendance of Dr. Camille Dreyfus until nearly the end of July 1918. When at length Dr. Dreyfus did come to be examined, the explanations which he has given to it seem to us very unsatisfactory. Apparently, however, this was almost the only unsatisfactory feature of the Inquiry, for although the Committee went very fully into all the financial transactions of the company from the issue of the original 150,000 shares to its sale in the nine years following, the Report states that:

"We have been unable to discover any evidence that the organisation of other companies was used to exercise undue influence on the company, or that the company in turn exerted the benefit of any undue influence thereby, nor do we think that any material advantage can be drawn from the great contrast between the nominal amount of these shares as between the nominal amount of the original shares and the prices at which they were issued."

In the course of the promotion of the company the services of the Prudential Trust Company of Canada, Ltd., Vickers, Ltd., the Universal Syndicate, Ltd., Nobel's Explosives, Ltd., the Explosives Syndicate, the Beckham Trust, Ltd., and other financial syndicates were requisitioned. As regards the company's relations with Government Departments, these are likewise fully detailed in the Report, but to definite conclusions, as reached with regard to the concession made to the company by the Government in the question of excess profits, Dr. Dreyfus was not a party. In this connection the Report states:

"We appreciate that it does not fall within our province to interpret the true meaning of this concession, the terms of which seem to have been mutually misunderstood, but we have asked upon it to decide whether it was proper or improper. It is, however, our duty to say that similar concessions and for similar reasons were being made, that the importance of a British supply of cellulose acetate was obvious, and the risk of dependence on a source of supply on the Continent of Germany was great, and that in a commercial bargain Dr. Dreyfus was in a position to command his own terms. Whether better terms would have been made with him we cannot tell, but the time present and the needs of the Air Force were paramount. In any case, the matter is now of little interest. It is obvious from the terms of the concession that before the company could derive any advantage therefrom the making of excess profits, and therefore of some profits, was an essential preliminary. The investigation we have undertaken, and made into the books and accounts of the company, confirms the statement in the company's affidavit that while the success of this concession to profits to all were made, and the concession has in fact turned out to be a total loss."

As for the concession that had been made that preference was given to the company's product as against the other British chemical manufacturers, the Committee think it have made out a subject of special investigation. The effect they are turning down the offers of British chemical manufacturers is explained thus:

"The British chemical manufacturers could have vacuum the difficulties and have acquired the necessary skill and experience in no very long time, we have not and to not know, but at the time as required there had to be added the further time required for engaging the necessary plant in a sufficient size in the middle of the war. Experience showed that in the case of one kind of plant, as in so many others, that further time would be lost. The policy of the Government generally was to use to the utmost the resources of plant in the country, if anything more was not actually necessary. The inquiries made by the Department showed that no chemical concern possessed a plant in being which could have been utilised capable for the production of any considerable quantity of cellulose acetate, and although several were confident that they could have reached the manufacturing stage quickly, there was much or too much risk that they might be disappointed. Several factories were disposed, and we have taken evidence as to the merits in the disposition. The responsible officials came to the conclusion that if contracts were placed with new manufacturers, there would be much delay in obtaining deliveries, and we are satisfied that they had materials before them from which such an opinion might reasonably be formed, nor have we sufficient grounds for holding that opinion to have been wrong."

Concerning the offers of the United Alkali Company, Ltd., and Courtaulds, Ltd., in May 1916, a tentative proposal to manufacture under the Cross in Stone process was made and communicated to the company by Mr. A. E. Turner, who had charge of the arrangements for the Aircraft Department. As Mr. Turner however, had already resigned when Dr. Dreyfus met all the requirements of his Department then accepted, and was given to understand that early deliveries from the British Cellulose Company might be expected, no was made to purchase any orders to the United Alkali Company, Ltd.,

and left it to the Admiralty to deal with them as they thought proper. The United Alkali Company was at that time prepared to co-operate with Dr. Dreyfus, but the negotiations came to nothing. Then :

A further proposal was made by the United Alkali Company to the Admiralty in October 1916, in which the company asked for a minimum guarantee of 100 tons per annum for five years, subject to "write-off" and depreciation allowances during the war, but the proposals struck Mr. Turner as being so extensive that, if accepted, they would mean the closing down of the company's works, and the substitution of the United Alkali Company, which was not then manufacturing, had not yet definitely secured the right to use the proposed process, and admitted that it would probably take six to nine months for the erection of the plant. This seems to have been a reasonable view.

Subsequent proposals made by the British Emaillite Company in conjunction with the United Alkali Company to manufacture under the same process were declined on the ground that investigation was being made into the possibility of making cellulose acetate at a Government factory, and that if the Department decided to adopt the process intermediaries would be dispensed with. The net result is, therefore, that the Committee are of opinion that nothing amounting to favouritism of the company has been shown by the Aircraft Department. It is admitted that from the commencement Dr. Dreyfus, and subsequently his company, received support and assistance from Government officials and became, in fact, the sole source to which the Service looked for supplies, but the Committee consider that the reasons for this were adequate. They find that there has been neither favouritism nor corruption, and that the official action taken had been throughout such as appeared to the Departments concerned the best that was open to them under the circumstances.

Opium and Cocaine Importation.

An interesting point has arisen in regard to the power of the Government to prohibit the importation of various goods into the United Kingdom. According to Sir John Simon, the legal position of the Proclamations made under Section 43 of the Customs Consolidation Act 1876 is very doubtful. This section gives power to prohibit by Proclamation "the importation of arms, ammunition, gunpowder, or any other goods," but Sir John contends that "any other goods" must be goods of the same kind as those mentioned, consequently the section does not confer authority to restrict the importation of furniture, boots, etc. If this is not the true construction of the section it is difficult to see why arms, ammunition, and gunpowder are mentioned at all, as they would be included in any general power to prevent importation of goods into the country. Attention should also be called to the fact that the Prime Minister stated last week in the House of Commons (*C. & D.*, August 23, p. 50) that power is to be sought so that the Board of Trade may prohibit the import of certain goods except under licence, a proceeding which would appear to be quite unnecessary if Section 43 of the Customs Consolidation Act 1876 bears the construction which has been put upon it during the war. Sir John Simon announced his intention of testing the legality of the Proclamation by bringing goods with him from Spain, but the ground has since been cut from his feet by the statement that all restrictions on free imports are to be dropped by September 1. Chemists are interested in this question, not only generally but particularly, because it is under this section that the Proclamation was made in 1916 prohibiting the importation of cocaine and opium into the United Kingdom except under licence. The legality of this Proclamation is, to say the least, doubtful, however laudable its object may have been. It is interesting also to note that this week the Board of Trade has issued a Press notice which concludes with the following words :

Further, it should be noted that in accordance with the provisions of Article 295 of the Peace Treaty, which requires all the parties to the treaty to adopt the International Opium Convention, the importation of opium and cocaine, except under Home Office licence, remains prohibited.

The allusion to the Peace Treaty is ingenious but hardly to the point, considering that the treaty is not yet ratified. There is scope here for Sir John Simon's laudable attempt to keep Government Departments strictly to administrative duties within the law, if he would bring with him from Spain a few grains of cocaine.

Venereal Disease Prophylaxis.

Early in the year an Inter-Departmental Committee was appointed to consider what concerted measures should be taken to mitigate the dangers of the dissemination of tropical and other diseases among the civil population during the demobilisation of the troops. A note on prophylaxis against venereal diseases has just been issued in the form of a report to the Minister of Health. A good many witnesses appear to have been examined and various statistics were before the Committee as to the effect of prophylaxis after exposure to venereal diseases. In regard to the general experience of prophylactics distributed before exposure to infection, as prevailing in the various Services, the Committee came to the conclusion (1) that certain drugs, if properly applied, are efficacious in preventing venereal disease; (2) that if these drugs are not properly or skilfully applied their efficacy cannot be relied upon; (3) that the issue of prophylactic "packets" tends to give rise to a false sense of security, and thus to encourage the taking of risks which would not be otherwise incurred, and the neglect of facilities for early treatment when available, and in certain cases might even increase the spread of disease; (4) that, in spite of the most careful instruction, the grant or issue of "packets" results in many an individual using them for self-treatment after he finds himself infected; (5) that, where preventive treatment is provided by a skilled attendant after exposure to infection, the results are better than when the same measures are taken by the individual affected, even after the most careful instruction; (6) that the excessive consumption of alcoholic liquors not only diminishes the sense of responsibility, but also tends to prevent the proper use of prophylactics and to delay the individual's application for skilled treatment; (7) that the most carefully organised "packet" system, such as exists now in the Army (a system which would be unattainable in the civil community), has not produced such a general reduction in the incidence of venereal disease as to counteract the disadvantages mentioned in these conclusions; (8) that the organisation of recreation and social amenities has assisted in the reduction of the incidence of venereal diseases in the Services before the war, and has also assisted in preventing that increase in the incidence of these diseases which, from past experience, might have been anticipated during the war; and (9) that energy should not be dissipated on measures of doubtful value, but concentrated rather on wise propaganda and the provision of early, prompt, and skilled treatment, in order to diminish the prevalence of these diseases. It should be recognised that failure to cure these diseases is one of the main causes of their prevalence, and that failure to cure, in the most skilled hands, results largely from failure to treat them in their early stages. The general conclusion is that there has not been sufficient evidence of the beneficial results gained by the distribution of prophylactic packets to prove the value of the system or to justify recommending its official encouragement among the civil population.

Coming Events.

This section of the "C. & D." is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Wednesday, September 3.

National Association of Chemists' Assistants (Birmingham Branch), Old Square, at 2.30 P.M. Excursion by motor-bus to Warwick, Leamington, and Kenilworth.

Thursday, September 4.

East Anglia Federation of Pharmaceutical Associations, Grand Hotel, Wentworth Street, Peterborough, at 6 P.M. Sir William Glyn-Jones on "The Position of Chemists in regard to the New Ministry of Health." Other matters are down for discussion. All pharmacists welcomed. Tea at 5 P.M. Tickets (3s. each) from Mr. Chas. Hamson, Cowgate, Peterborough, not later than August 30.

The Odorous Principles of Plants.

By Frederick B. Power, Ph.D., LL.D., F.C.S.

The author, who is well known in this country on account of his numerous researches on chemical and vegetable materia medica, is Director of the Phytochemical Laboratory of the Bureau of Chemistry, Washington, D.C. On retiring from the presidency of the Chemical Society of Washington this year, Dr. Power delivered an address before a joint meeting of that Society and the Washington Academy of Sciences on the distribution and characters of some of the odorous principles of plants. The address, which has been sent us by the author, is the most recent *résumé* of the subject, and is of special interest to pharmacists.

The substances which impart to many plants a particular and often characteristic odour are almost infinite in their variety, and comprise some of the most interesting compounds in the domain of organic chemistry. Many of them possess a cyclic structure, while others belong to the class of so-called aliphatic or open-chain compounds, which may be either saturated or unsaturated, and they include representatives of such various groups as the hydrocarbons, alcohols, aldehydes, ketones, phenols and phenol ethers, acids, esters, and lactones. Hydrocyanic acid, which may be regarded as the nitrile of formic acid, occurs among the products of distillation of many plants, and other nitriles represent the principal constituent of some essential oils, such, for example, as that of the nasturtium, *Nasturtium officinale*, Linné, which consists chiefly of phenylpropionitrile, $C_6H_5.CH_2.CH_2.CN$. It is well known that by the distillation of bitter almonds benzaldehyde and hydrocyanic acid are obtained, and that these substances, by prolonged contact, unite to form phenyloxyacetonitrile, $C_6H_5.CH(OH).CN$, which is therefore contained in varying amounts in the essential oil of bitter almonds. Other nitrogen compounds which are represented among the odorous constituents of plants are, for example, indole, C_8H_7N, which is a constituent of the essential oil of jasmine and of orange flowers, and its methyl derivative, skatole, C_9H_9N, which has been found in the wood of an East Indian tree, *Celtis reticulosa*, Miq. or *C. cinnamomea*, Lindl. Notwithstanding the fact that skatole possssses a strong fæcal odour, it is employed, as is also indole, in the preparation of synthetic perfumes. Another interesting nitrogen compound, which appears to be somewhat widely distributed in nature and imparts to many floral products a quite distinctive odour, is the methyl ester of anthranilic acid, $C_6H_4(NH_2).CO_2CH_3$. This has been found in the essential oils of orange flowers (neroli), tuberose, jasmine, gardenia, and ylang-ylang, and also in the oils of sweet orange peel and bergamot leaves. A methyl derivative of methyl anthranilate, $C_6H_4(NH.CH_3)CO_2CH_3$, has been found in the essential oils obtained from the fruit and the leaves of the mandarin orange. Compounds containing sulphur as a characteristic constituent, the so-called mustard oils, are yielded by many plants belonging to the family of *Cruciferæ*. Numerous sulphur compounds are likewise contained in liliaceous plants, such as the onion and garlic, as also in the gum resin, asafœtida, a product obtained from various species of *Ferula*, belonging to the family of *Umbelliferæ*.

Although the odorous principles of plants are frequently developed in some particular part or organ of them, such as the petals of the flower, of which examples are afforded by the rose and other fragrant blossoms, they are sometimes found in the flowers and fruit, as in the orange tree, while in other instances they are contained chiefly in the foliage. It is also of interest to note that when totally distinct parts of a plant, such as the leaves and root, possess odorous or aromatic properties, the substances to which these properties are due may be quite different in character and have little or no direct chemical relationship. A particularly striking instance of this peculiarity is afforded by the essential oils obtained from the root and leaves, respectively, of the sassafras tree, *Sassafras variifolium* (Salisbury), O. Kuntze. The oil distilled from the root, especially the bark of the latter, contains among other substances safrol, camphor, and eugenol, which are not found in the leaves, while on the other hand the leaves contain the olefinic terpene, myrcene, together with citral, linalool, and geraniol, no one of which is contained in the root. Another instance of similar variations is that of the products from the Ceylon cinnamon tree, *Cinnamomum zeylanicum*, Breyne, the oils distilled from the root, leaves, and bark, respectively, being quite different in composition. In the oil from the root camphor is a characteristic constituent, whereas the oil from the leaves contains chiefly eugenol, and in that from the bark cinnamic aldehyde predominates.

It can naturally not be expected that such volatile products of plants as are comprehended under the designation of essential oils should be constant in composition, but, nevertheless, some remarkable differences, other than those already described, have been observed in oils distilled from the same species. Thus the phenol contained in the oil from the common garden thyme, *Thymus vulgaris*, Linné, is as a rule thymol, or isopropyl-*meta*-cresol, $C_6H_3.CH_3(1).OH(3).C_3H_7(4)$, but this is sometimes replaced partially or even entirely by the isomeric, liquid compound, carvacrol, which is isopropyl-*ortho*-cresol, $C_6H_3.CH_3(1).OH(2).C_3H_7(4)$. The conditions upon which the formation of one or the other of these compounds depends are not known, but variations in soil and climate certainly have in many cases a marked influence upon the constituents of a plant, and important changes often likewise take place on drying. The oil of lavender flowers, which is distilled in France from wild-growing plants (*Lavandula vera*, DC.) is characterised by containing a large proportion of the fragrant alcohol, linalool, $C_{10}H_{18}O$, and its esters, together with geraniol, whereas the oil distilled in England from cultivated plants contains a much smaller proportion of esters and a relatively large amount of cineol, $C_{10}H_{18}O$, a substance having a camphor-like odour, which occurs only in traces in the French oil.

The more or less characteristic odour which many plants possess rarely depends upon the presence of a single substance, but is usually due to a complex mixture of substances, in which, however, some one compound may largely predominate. These odorous principles are generally obtained by a process of steam distillation, and as such products are for the most part in the form of liquids which are sparingly soluble in water, they are comprehended under the broad title of essential oils or volatile oils, in French *essence*, an expression which serves in a way to differentiate them from the so-called fatty or fixed oils, which, however, differ appreciably in their physical and chemical characters. In cases where the oil does not pre-exist in the plant, but is formed by the hydrolysis of a glucoside, as in the mustard seed, bitter almond, gaultheria leaves, and sweet birch bark, a preliminary digestion with water is necessary before distillation. Some of the essential oils which become somewhat impaired by heat are obtained by expression, notably those of the citrus fruits, such as the orange, lemon, and bergamot. In other instances the odour of certain flowers is of so delicate a nature that it can only be obtained in a tangible form by extracting the material with a volatile solvent or by maceration with a fixed solvent, such as an oil or fat, either with or without the aid of heat. The use of heat in the process of maceration appears to be desirable for extracting the perfume from the violet and rose, as also from orange and cassie flowers, and this method of procedure is known by the French expression of *enfleurage à chaud*. For still more delicate flowers, such as those of the jasmine, tuberose, jonquil, lily of the valley, and mignonette, a process of cold maceration or *enfleurage à froid* is employed. This operation is conducted by spreading a specially prepared fat on both sides of a sheet of glass contained in a wooden frame, the apparatus being termed a *châssis*, and upon the upper surface of the glass the flowers are then strewn. These *châssis*, 35 to 40 in number, are placed one above the

other in such a manner that the flowers are not only immersed in the fat but have a layer of fat above them to absorb any of the volatile substance exhaled. The length of time during which the flowers are allowed to remain in the *châssis* is said to be about 24 hours for jasmine, 48 hours for jonquil, and 72 hours for the tuberose, and the operation is usually repeated about thirty times in order that the desired degree of absorption or concentration of the perfume may be obtained. With each repetition of the process the arrangement of the *châssis* is reversed, the fresh flowers being strewn on the layer of fat which was previously on the under side of the glass, but which now becomes the upper side, in order to effect an equal distribution of the perfume. The reason for employing the cold method of extraction for certain flowers depends upon the interesting observation that the essential oil to which their fragrance is due does not exist ready formed, or at least in only very insignificant amount, but is continually produced during the life of the cells. If this vital activity were destroyed by means of a volatile liquid or the use of a warm fat the amount of perfume developed would be very greatly diminished. From the fat which has been more or less saturated with the perfume of the flowers—the so-called pomade—the odorous principles may be extracted by treatment with strong alcohol, and by exposing this extract to a low temperature the last portions of fat are separated. In this way many of the concentrated extracts are obtained which constitute the most highly esteemed floral perfumes.

On account of the exceedingly large number of odorous substances contained in plants, as already intimated, it would not be practicable to attempt to enumerate them or to present any classification in accordance with the various groups of organic compounds to which they belong. Such a plan would, moreover, be quite far removed from the purpose of the present paper, which is to indicate somewhat broadly the distribution of some of the more important of these substances in Nature, and also to draw attention to some of the points of chemical interest connected with them. With this object in view a consideration based chiefly upon the usual botanical classification of plants would appear to be the most practicable, and such a classification has indeed been adopted by some of the standard works which treat of the essential oils.

The cryptogamous or flowerless plants do not, as a rule, possess any very marked or distinctive odour, although in a few instances such properties have been observed in certain algæ, fungi, lichens, and ferns. The essential oil or other individual substance to which this property is due is, however, always present in very small amount, and as the chemical character of these products is as yet but little known, they cannot be considered to possess any particular interest. The *phanerogamous* or *flowering plants*, on the other hand, contain such a variety of interesting odorous compounds that the selection of such a very limited number as can be considered at this time, and which may be deemed most appropriate for the present purpose, is rendered rather difficult.

Coniferæ.

In pursuance of the proposed plan, some of the more important odorous products which are yielded by the family of *Coniferæ* may first be considered, and in connection therewith a few of the interesting compounds which are derived or prepared therefrom will be noted.

One of the essential oils which has been longest known, and which on account of its extended technical applications is generally familiar, is the oil of turpentine, a product obtained by steam distillation from the oleo-resinous exudation of various pines. Several varieties of this oil are known, but the two more important ones are of American and French origin. The American oil is obtained chiefly from *Pinus palustris*, Miller, and *P. heterophylla* (*Ell.*) Sudworth, and is usually dextrorotatory, while the French oil is yielded by *Pinus pinaster*, Solander, and is levorotatory. The chief constituent of these oils is pinene, $C_{10}H_{16}$, in either the *d* or *l* form, or a mixture of them, and this terpene is also found in a large number of other plants. It is now known, moreover, that the optical isomerides may occur in two distinct forms, which are designated as α and β, and as these differ in their structure they show marked differences in their chemical behaviour. In contact with dilute mineral acids pinene is readily converted into the handsomely crystalline compound terpin hydrate, $C_{10}H_{18}(OH)_2.H_2O$, a primary product of this reaction being terpineol, $C_{10}H_{17}.OH$. The terpineol of commerce is usually prepared by the action of dilute sulphuric acid on terpin hydrate, and the liquid product so obtained is the basis of the lilac perfumes. This liquid is, however, not a homogeneous substance, but a mixture of isomeric, crystallisable compounds which are designated as α and β terpineol, and the presence of a liquid terpinenol, $C_{10}H_{18}O$, has also been established. Terpineol is found in nature, but apparently only in the active or inactive α form. In the dextrorotatory modification it occurs in cardamom and linaloe oils, and in the oils of sweet orange, neroli, and lovage root. The levorotatory modification has been found, among other sources, in camphor oil, in the oil from the leaves of the camphor tree, linaloe oil, and the oil of Canada snake root, while in the inactive form it has been obtained in the solid state from cajuput oil, and as a liquid from the oils of nutmeg and boldo leaves.

By the action of concentrated sulphuric acid on oil of turpentine the preparation known as terebene is obtained, which is used to a considerable extent medicinally. This is not an individual substance, but a mixture of hydrocarbons, consisting chiefly of camphene, dipentine, terpinene, and cymene.

In connection with oil of turpentine a brief reference may be made to the subject of synthetic camphor, since it forms the starting-point for the technical production of this substance. A number of different methods have been suggested or employed from time to time, which have mostly been the subject of patents, and only one or two illustrations of them need here be given. By leading dry hydrogen chloride into completely dry and cooled pinene, the so-called pinene hydrochloride, or more properly bornyl chloride, $C_{10}H_{17}Cl$, is obtained. As this is a crystalline compound having a camphor-like odour, it formerly received the incorrect appellation of "artificial camphor." By the subsequent elimination of hydrogen chloride from bornyl chloride there is obtained the terpene camphene, which is of interest as being the only solid hydrocarbon of the formula $C_{10}H_{16}$ which occurs in Nature. On treating camphene with glacial acetic and sulphuric acids isobornyl acetate is formed, which on hydrolysis, and subsequent oxidation of the isoborneol, yields camphor. Another method consists in forming an ester of borneol by the action of anhydrous oxalic acid on oil of turpentine, and then subjecting the ester successively to hydrolysis and oxidation.

The essential oils distilled from pine needles differ markedly in character from the proper turpentine oils, as in them the pinene is replaced to a considerable extent by other terpenes, such as camphene, limonene or dipentene, phellandrene, sylvestrene, and cadinene, and they also contain especially notable proportions of the acetic ester of borneol, amounting in the oil of the hemlock spruce, *Abies canadensis*, Michaux, or *Tsuga canadensis*, Carr, to as much as 50 per cent. This ester possesses the characteristic fragrant odour of the pine and is used in perfumery.

The resinous balsam obtained from the so-called "Nut Pine" or "Digger Pine," *Pinus sabiniana*, Douglas, is of particular interest inasmuch as it yields on distillation an essential oil which differs completely in composition and properties from the turpentine oils. It is stated to have been first prepared in California during the Civil War, when the production of turpentine in the Southern States had ceased, and was brought into commerce for cleansing purposes under various fanciful names, such as abietene, erasine, etc. This oil, like that from *Pinus Jeffreyi*, Murray, a pine growing at higher altitudes in the Sierra Nevada mountains, has been found to consist almost entirely of normal heptane, C_7H_{16}, identical with that found in petroleum.

Another product from a coniferous plant is the oil of juniper, which is distilled from the berries of *Juniperus*

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communis, Linné. This has been found to contain, among other substances, pinene, borneol, and isoborneol, terpinenol, and cadinene. It is chiefly employed in the manufacture of Hollands gin, which is said to owe to it its peculiar flavour and diuretic properties.

The wood of the so-called red cedar, *Juniperus virginiana*, Linné, has long been used in the manufacture of cigar-boxes, lead-pencils, and other articles, and its odour is due to a viscid essential oil, which is considerably used for perfuming soap. This oil contains a sesquiterpene, termed cedrene, $C_{15}H_{24}$, and a sesquiterpene alcohol, cedrenol, $C_{15}H_{24}O$. The leaves of this tree yield on distillation a limpid essential oil, which differs entirely in its composition and properties from that obtained from the wood, its constituents being pinene, limonene, borneol, both in the free state and as an ester, and the sesquiterpene cadinene, $C_{15}H_{24}$. The oil of cedar leaves of commerce appears to be distilled chiefly from the leaves of *Thuja occidentalis*, Linné, commonly known as the *arbor vitæ* or white cedar, and consists chiefly of pinene, *l*-fenchone, and thujone. The leaves of *Juniperus sabina*, Linné, or savin, yield an essential oil which is used to some extent medicinally. Its most important constituent is an alcohol, sabinol, $C_{10}H_{16}O$, which is present both in the free state and as an ester, and it has also been found to contain citronellol, geraniol, and a dihydrocuminyl alcohol, $C_{10}H_{16}O$. The latter two compounds likewise occur together in ginger-grass oil.

Gramineæ.

The *Gramineæ* (grass family) yield a number of fragrant essential oils which are used to a very large extent in perfumery, and are therefore of great commercial importance. Among this class of products the following oils and their botanical sources may briefly be noted:

Palmarosa oil, also known as East Indian geranium oil, is obtained from *Cymbopogon martini*, Stapf, a plant which was formerly referred to the genus *Andropogon*, and under this botanical name it has many botanical synonyms. A variety of the same plant yields the so-called ginger-grass oil. Lemon-grass oil is likewise obtained from species of *Cymbopogon*, which differ according to the source of production of the oil. *Cymbopogon flexuosus*, Stapf, which is distilled in the East Indies, yields the lemon-grass oil of commerce, whereas on the Malabar coast an oil of somewhat different character is distilled from *C. citratus*, Stapf. Citronella oil is distilled in Ceylon and Java from the grass *Cymbopogon nardus*, Rendle. Vetiver oil, unlike the other grass oils, is distilled from the root of the plant, which in India is known as "Cus-cus" or "khas-khas," meaning an aromatic root. The plant is now botanically referred to as *Vetiveria zizanioides*, Stapf. In India the roots of the vetiver have long been employed for making baskets, as also for screens and mats, which are placed in doorways or hung over windows, and in hot weather are frequently sprinkled with water, when they serve to cool and perfume the air.

With regard to the chemical constituents of the grass oils, it may be noted that palmarosa oil, which has a pleasant rose-like odour, consists to a large extent of the aliphatic terpene alcohol, geraniol, $C_{10}H_{18}O$, together with a relatively small proportion of its esters. The name geraniol was in fact first applied to the compound obtained from this source, but it has since been found to be a predominating constituent of the otto of rose, and is contained in numerous other essential oils. The commercial importance of palmarosa oil may be indicated by the fact that the amount annually exported from Bombay has been estimated to be about 50,000 lb. This, however, is considered to relate only to the oil produced in Bombay and the central provinces of India, for in the year 1902-3 the actual amount exported was 125,000 lb., and this is attributed to the greatly increased production of the southern provinces. In the year 1905-6 the total amount of essential oils exported from Bombay was 23,436 gals., representing a value of approximately $250,000. This consisted chiefly of palmarosa oil, only about one-fourth having been ginger-grass oil.

Ginger-grass oil consists chiefly of a mixture of geraniol and a dihydrocuminyl alcohol, the odour of the latter recalling that of both linalool and terpineol. Besides these compounds there are relatively small amounts of *d*-phellandrene, dipentene, *d*-limonene, isocarvone, and other substances.

Lemon-grass oil, which possesses a strong lemon-like odour, contains as its most important constituent the aliphatic aldehyde, citral, $C_{10}H_{16}O$. This compound, which is an essential constituent of lemon oil and is quite widely distributed in Nature, is the aldehyde corresponding to geraniol, from which it may readily be obtained by oxidation. Citral, apart from its individual value as a constituent of many fragrant oils, is of particular interest and importance from the fact that from it, by condensation with acetone, there is produced the substance known as ionone, which is the basis of the artificial violet perfumes. In the first step of this process citral and acetone, in the presence of alkalis, condense with the elimination of water to form a compound termed pseudo-ionone:

$$C_{10}H_{16}O + (CH_3)_2CO = C_{13}H_{20}O + H_2O.$$

The pseudo-ionone, when heated with acids or acid salts, is converted into an isomeric, unsaturated, cyclic ketone, termed ionone, $C_{13}H_{20}O$, which possesses a characteristic violet odour. This interesting compound will subsequently be further considered.

Citronella oil is largely employed for perfuming the cheaper kinds of soap, and is of very complex composition. The constituent to which its characteristic odour is most largely due is an aldehyde of the formula $C_{10}H_{18}O$, which has been termed citronellal. Other oxygenated compounds contained in the oil are *l*-borneol, nerol, geraniol, esters of geraniol and citronellol, and eugenol, methyl ether, together with the terpenes camphene, dipentene, *l*-limonene, and one or more sesquiterpenes. The amount of citronella oil exported from Ceylon in 1911 was 1,524,275 lb., and in 1917 Java exported 1,137,051 lb.

Vetiver oil, which is used in perfumery, is more or less viscid in character and possessses a high boiling point. Its constituents have not been sufficiently studied as yet to render their consideration of special interest.

Palmæ.

The palm family does not contain many odorous substances. It may be considered of interest to note, however, that by treating crude coconut oil with steam under pressure for the purpose of rendering it edible an essential oil of unpleasant odour is obtained. This has been found to contain methylheptylketone, $CH_3.CO.C_7H_{15}$, and methylnonylketone, $CH_3CO.C_9H_{19}$, and the corresponding carbinols, $CH_3.CH(OH).C_7H_{15}$ and $CH_3.CH(OH).C_9H_{19}$. These compounds also represent the chief constituents of an Algerian oil of rue, but while the alcohols obtained from coconut oil are dextrorotatory, those from rue oil are levorotatory. It has recently been ascertained that palm kernel oil, when subjected to similar treatment, yields an essential oil which consists to the extent of 90 per cent. of methylnonylketone.

Liliaceæ.

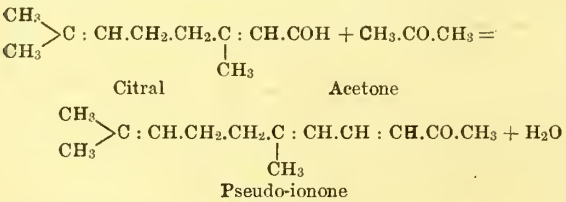
It has already been indicated that several plants belonging to the family of *Liliaceæ* yield essential oils which consist to a large extent of sulphur compounds, such, for example, as the garlic, *Allium sativum*, Linné, and the common onion, *Allium cepa*, Linné. It was for a long time assumed that the chief constituent of the oil of garlic is allyl sulphide $(C_3H_5)_2S$, but it has more recently been shown that this is not contained in either the oil of garlic or that of the onion, both of which consist of mixtures of much more complex sulphur compounds. The same family is represented by plants with such fragrant blossoms as the hyacinth, *Hyacinthus orientalis*, Linné, and the lily of the valley *Convallaria majalis*, Linné. The substances to which the perfume of the last-mentioned flowers is due have not as yet been fully investigated, but it is known that the hyacinth contains benzyl benzoate, with probably free benzyl alcohol, and also esters of cinnamic alcohol. The odours have been well imitated in various artificial oils and extracts, the exact composition of which is generally a trade secret, but it may be noted that phenylacetic

aldehyde, $C_6H_5.CH_2.COH$, possesses an intense hyacinth-like odour, and is considerably used in perfumery. The fragrance of the lily of the valley appears to be due, at least in part, to the presence of the aliphatic sesquiterpene alcohol, farnesol, $C_{15}H_{26}O$, which is also contained in cassie flowers (*Acacia farnesiana*, Willd.), in those of the common or false acacia (*Robinia pseudacacia*, Linné), linden (*Tilia europæa*, Linné), lilac (*Syringa vulgaris*, Linné), and mignonette (*Reseda odorata*, Linné).

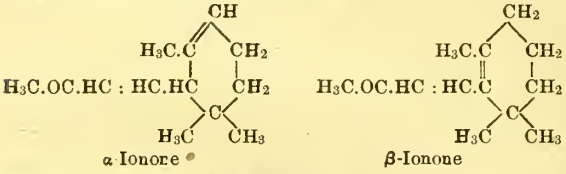
The tuberose, *Polianthus tuberosa*, Linné, which belongs to the family of *Amaryllidaceæ*, possesses, as is well known, very fragrant blossoms. This fragrance, as in practically all cases, is not due to a single substance, but to a combination of odorous compounds. The flowers have been found to contain methyl anthranilate, benzyl alcohol, benzyl benzoate, with apparently other esters of benzoic acid, and a very small amount of methyl salicylate.

Iridaceæ.

The family of *Iridaceæ* is of particular interest on account of the fact that the rhizomes of several species of the genus *Iris*, especially after drying and being kept for some time, possess a distinctly violet-like odour, which is familiar in the so-called orris root. The species of *Iris* which are chiefly cultivated for commercial purposes in the province of Florence and other parts of Italy are *Iris germanica*, Linné, *I. pallida*, Lam., and *I. florentina*, Linné. The odour of the rhizomes is due to the presence of a very small amount, 0.1 to 0.2 per cent., of an essential oil, which at ordinary temperatures is a soft solid, and consists to the extent of about 85 per cent. of the perfectly inodorous myristic acid. The constituent of the oil which imparts to it the characteristic violet odour is a liquid, cyclic ketone, termed irone, $C_{13}H_{20}O$. It was the isolation and investigation of this compound that led to the synthetic production of the isomeric ketone, ionone, which, together with its homologues, is now so largely used in the preparation of violet perfumes. As previously indicated, this substance is obtained by the condensation of the aldehyde, citral, with acetone, a substance termed pseudo-ionone being first formed, which, through inversion by means of acids, is converted into ionone.



The ionone, as obtained by the method described, is always a mixture of the α and β forms, which possess the following constitution :



Zingiberaceæ.

The family of *Zingiberaceæ* includes a number of plants, the roots or rhizomes of which possess aromatic properties. Among these there may be noted the curcuma (*Curcuma longa*, Linné), which, although yielding from 3 to 5 per cent. of an essential oil, is cultivated more especially in India and China on account of the yellow colouring matter contained in the rhizome. Zedoary, from *Curcuma zedoaria*, Roscoe, is cultivated in India, where the leaves are used to some extent as a potherb. The essential oil obtained from the root is said to resemble in odour that of ginger, but differs by being also somewhat camphor-like, which is due to the presence of cineol.

The most familiar representative of the *Zingiberaceæ* is ginger, from *Zingiber officinale*, Roscoe, which is cultivated in the Far East, as well as in the West Indies and Africa. The aromatic properties of the rhizome, but not its pungent taste, are due to an essential oil, which contains the terpenes, camphene and phellandrene, also citral, cineol and borneol, and the sesquiterpene termed zingiberene. The constituents of ginger upon which its pungency depends have recently been the subject of extended investigations, but these would not be appropriately considered here.

The very aromatic seeds of the cardamom yield essential oils which differ in composition according to their source. Thus the oil distilled from the Malabar cardamom, *Elettaria cardamomum*, Maton (var. α minor), contains *d*-α-terpineol and terpinylacetate, together with cineol, whereas the oil from the long Ceylon cardamom *E. cardamomum*, Maton (var. β), contains the terpene known as terpinene, and a terpineol which is isomeric with the ordinary α-terpineol. The Siam cardamom oil is at ordinary temperatures a semisolid mass, the crystalline constituents of which consist of *d*-borneol and *d*-camphor in approximately equal amounts.

Orchidaceæ.

The members of the orchid family are of much botanical interest on account of the form and beauty of the flowers, but there is one plant of this group which yields a product possessing both chemical interest and economic value, namely, the vanilla. The so-called vanilla bean, which was formerly used to a much larger extent than at present for flavouring purposes, represents the cured, full-grown, but immature fruit of *Vanilla planifolia*, Andrews, a plant which is a native of the forested valleys of the eastern Mexican Andes, but is now cultivated in nearly all tropical countries.

The most important constituent of vanilla, being that to which its odour and taste are chiefly due, is the crystalline substance known as vanillin, $C_8H_8O_3$, which is the methyl ether of protocatechuic aldehyde,

$$C_6H_3.OH(OCH_3).COH.$$

It has long been recognised, however, that this substance does not completely represent the flavour of the vanilla bean, as contained in extracts prepared from it, and it has therefore been assumed that other aromatic substances are associated with it. It has indeed been shown that by extracting Tahiti vanilla with ether, and removing the vanillin from the extract, an oily product of characteristic, agreeable odour is obtained, which contains both anisyl alcohol, $C_6H_4(OCH_3).CH_2OH$, and anisaldehyde, $C_6H_4(OCH_3).COH$.

Vanillin is not now obtained to any extent from its natural source, but is produced on a large scale synthetically. Its first artificial production, although not a complete synthesis, was an achievement of great chemical interest. It was found, for example, that the glucoside coniferin, $C_{16}H_{22}O_8$, which is contained in the sapwood of pine trees, when hydrolysed by acids or emulsin is converted into the crystalline coniferyl alcohol, $C_{10}H_{12}O_3$ or $C_6H_3.OH(OCH_3)(C_3H_4OH)$, and dextrose, and the coniferyl alcohol on oxidation is resolved into vanillin and acetic acid :

$$C_{10}H_{12}O_3 + O_2 = C_8H_8O_3 + C_2H_4O_2.$$

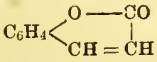
Vanillin is now produced technically from eugenol, $C_{10}H_{12}O_2$, which is found in the largest proportion in clove oil, although also a constituent of numerous other essential oils. The eugenol is first converted into an ester of isoeugenol, and the latter then subjected to oxidation. It is of interest to note that vanillin is quite widely distributed in nature, although usually occurring in very small amounts. It has been found in the oil of meadowsweet (*Spiræ ulmaria*, Linné) and in close oil, in the flowers of fragrant orchids, and in crude beet sugar, while its presence has been assumed in a considerable number of other vegetable products of the most diverse character.

Another related compound, which may appropriately be considered here on account of its extended use in perfumery, is the so-called heliotropin, $C_8H_6O_3$, which chemically is known as piperonal or the methylene ether of protocatechuic aldehyde, $C_6H_3\left(\begin{matrix}O\\O\end{matrix}\!\!>CH_2\right)COH$

This handsome, crystalline substance, which possesses in

a marked degree the sweet doour of the heliotrope, was first obtained by the oxidation of piperic acid, $C_{12}H_{10}O_4$, the latter compound being formed, together with the base piperidine, $C_5H_{11}N$, when piperine, $C_{17}H_{19}O_3N$, the alkaloid of black pepper, is heated with alcoholic potash. It is now produced much more cheaply by the oxidation of isosafrol. The occurrence of piperonal in an essential oil has been observed in but one instance, it having been found in exceedingly small amount, together with salicylic aldehyde and methyl salicylate, in the oil of spiræa. Its presence in the heliotrope or in other flowers having a similar odour has not as yet been established.

An interesting and important odorous substance, which is quite different in chemical character from the crystalline substance just described, is the lactone known as coumarin, $C_9H_6O_2$, or the anhydride of orthohydroxycinnamic acid,



It was first found in the tonka bean, the fruit of *Dipteryx odorata*, Willd., from which it often separates in the form of a crystalline efflorescence on the surface, but has since been observed to occur in a very large number of plants. In some cases it appears not to exist ready formed in the plant, but to be produced through a fermentative action on drying. It is the substance which imparts to various species of *Melilotus* or sweet clover the familiar fragrant odour, and is also found in considerable amount in the leaves of *Trilisia odoratissima*, Cass. (*Liatris odoratissima*, Willd.), the so-called deer's tongue or hound's tongue, an herbaceous composite plant which is common in the low pine barrens of Virginia and southward.

Coumarin is largely used in perfumery, and it is said to be the principal ingredient in the artificial extract of new-mown hay, the odour of which it closely resembles. It is probably now produced entirely by synthetic methods, one of which, known as the Perkin synthesis, consists in the action of acetic anhydride and anhydrous sodium acetate on salicylic aldehyde.

Another crystalline synthetic compound, which has been considerably employed for perfuming soap, was introduced into commerce some years ago under the fanciful name of "nerolin." This is the methyl ether of β-naphthol, $C_{10}H_7.OCH_3$. Although its odour somewhat resembles that of the oil of neroli or orange flowers, it bears no chemical relationship to any of the constituents of this fragrant oil. The corresponding ethyl ether, which differs somewhat in odour from the methyl compound, has been used for a similar purpose.

(*To be continued.*)

Association Affairs.

Sheffield.—At the monthly meeting of the Sheffield Pharmaceutical Students' Association, held on August 20, Mr. I. Best (President) in the chair, the programme for the ensuing session was approved. It consists of debates, lectures, socials, dances, concerts, and botanical excursions. It was decided to issue a magazine, and the following were elected to form a Sub-committee: Messrs. I. Best, J. W. Bell, L. A. Chatterton, J. E. Billington, and Miss E. Morris. The Sub-committee will elect an editor, sub-editor, and photographic editor. A botany page will be periodically included. A discussion on the University classes and the proposed Union of Pharmaceutical Students followed.

Southend-on-Sea.—A meeting of the Southend-on-Sea Association of Pharmacists was held on August 14, Mr. R. H. Shields in the chair. The report of the Council meeting and special general meeting of the Society was commented on. It was decided, after a discussion on the desirability of approaching the local doctors for bringing about a better relationship between the medical and pharmaceutical professions, that the matter should be raised at a more representative meeting of the members. It was also decided that any chemists who became candidates for the next Borough Council election should receive the assistance of members of the Association. The importance of pharmaceutical representation on the local council, in view of the approaching Ministry of Health, was discussed. The effect on pharmacists of the new profiteering Bill was considered, and the Secretary read a communication from the Southend Chamber of Commerce inviting an expression of opinion from the Association and the attendance of its members to a public meeting for consideration of Profiteering Tribunals.

South African Spirit Duty.

A Bill has recently been introduced into the Union Parliament which proposes to continue the operation of certain increased duties imposed by Act No. 22 of 1915, as amended by Act No. 36 of 1917, and re-imposed by Act No. 20 of 1918, until June 30, 1920. Certain amendments to the schedule of import duties in the Customs tariff at present in force are also proposed, among which are included increased duties on ale, beer, and cider; perfumed spirits, liqueurs, cordials, and mixed spirits; medicinal and toilet preparations and essences (liquid), syrups and tinctures containing over 3 per cent. of proof spirit. The following is the proposed new schedule for spirits, etc.:

——	Old Rate		Proposed Rate	
	Duty	Rebate	Duty	Rebate
(*a*) Perfumed spirit, per Imperial gallon	1 5 0 and	nil	1 11 6 and	nil
and in addition per 100*l*....	10 0 0	nil	10 0 0	nil
(*b*) Liqueurs, cordials and mixed spirits, exceeding 3 per cent. of proof spirit, per Imperial gallon ...	1 4 6 or	nil	1 11 0 or	nil
or per 100*l*. ... ... (Whichever duty shall be the greater.)	25 0 0	nil	25 0 0	nil
(*c*) Other sorts exceeding 3 per cent. of proof spirit, per Imperial proof gallon No allowances will be made for under proof in excess of 15 per cent.	1 3 6	nil	1 10 0	nil
(*d*) Medicinal and toilet preparations, and essences (liquid), syrups and tinctures; containing over 3 per cent. of proof spirit, per Imperial gallon ...	1 4 6 or 25% *ad val.*, whichever duty is greater	nil	*1 11 6	nil

* Such spirits, if and when over proof, shall be specially entered and the strength over proof declared, and the duty on the mixture shall then be leviable at 1*l*. 10*s*. per Imperial proof gallon or 25 per cent. *ad valorem*, whichever duty shall be the greater.

It is also proposed to amend the class of articles which pay duty at the rate of 3 per cent. *ad valorem*, with a rebate of the whole duty on goods the growth, produce, or manufacture of the United Kingdom and reciprocating British Possessions, by including certain articles not at present appearing in this class, among which are anhydrous ammonia, ammonium carbonate, chloride (sal-ammoniac), nitrate, and perchlorate, in bulk; barium peroxide in bulk; certain pastes and powders used in clarifying sugar juice; vitreous alumino-silicate compositions of borax glasses for use in the manufacture of enamelled ware. Articles free of duty will include casein in bulk, and various oil seeds and nuts, under certain conditions and regulations. It is proposed to tax soy (a new tariff item) at $1\frac{1}{4}d$. per lb.

British "Key" Industries.

An announcement as to the steps which are to be taken in connection with imports of goods from abroad was made by the Board of Trade on August 23. The announcement forms a sequel to the statement made by the Prime Minister on August 18 on the subject of trade policy. Legislation will be introduced when Parliament reassembles in the autumn—

(*a*) For the protection of goods manufactured in Great Britain and Ireland against dumping, by taking power to prevent the sale in this country of similar goods beneath their price in the country of origin.

(*b*) To enable the Board of Trade to check any flood of imports (for instance, from Germany) that might arise from a collapse of exchange so disproportionate to costs of production in the country of origin as to enable sales to take place in this country at prices altogether below costs of production here.

(*c*) To deal with unstable "key" industries in the following way: A limited number of unstable "key" industries will be scheduled, the products of which will be prohibited from importation into this country except on licence.

Pending legislation, a general licence under the Prohibition of Import Proclamations will be issued by the Board of Trade, having effect as from September 1, 1919, and authorising the importation into the United Kingdom of all goods, with the exception of those in the following list, which will be treated as unstable "key" industries:

(1) All derivatives of coal tar generally known as intermediate products capable of being used or adopted for use as dyestuffs or of being modified or further manufactured into dyestuffs.

All direct cotton colours, all union colours, all acid colours, all chrome and mordant colours, all alizarine colours, all basic colours, all sulphide colours, all vat colours (including synthetic indigo), all oil, spirit, and wax colours, all lake colours, and any other synthetic colours, dyes, stains, colour acids, colour lakes, leuco acids, leuco bases, whether in paste, powder, solution, or any other form.

(2) Synthetic drugs (including antiseptics).

(i) Synthetic perfumes and flavourings; synthetic photographic chemicals; synthetic tannins; esters and acid derivatives of aromatic hydrocarbons; alkaloids and their salts (except quinine); and the following organic chemicals: Acetamide; acetic acid; acetic anhydride; acetyl chloride; camphor bromide; cinnamic acid and its salts; ethylene bromide; formamide; formic acid and its salts; gallic acid; lactic acid and its salts; nuclein; paraldehyde; pyrogallic acid; saccharin or other substances of like nature or use; salicin; thymol.

(ii) Analytical reagents, and the following fine chemicals: Barium compounds; cerium fluoride and fluorides of other rare earth metals; hydrosulphites and allied bleaching compounds; hypophosphorus acid; iron and ammonium citrate; iron tartrate; molybdic acid and its salts; phosphorus oxides and halogen compounds; salts of per acids and artificial peroxide; silver nucleinate and proteinate; tungstic acid and its salts.

(3) Optical glass, including lenses, prisms, and like optical devices.

(4) Scientific glassware.

(5) Illuminating glassware.

(6) Laboratory porcelain.

(7) Scientific and optical instruments.

(8) Potassium compounds.

(9) Tungsten powder and ferro-tungsten.

(10) Zinc oxide.

(11) Lithopone.

(12) Thorium nitrate.

(13) Gas mantles and mantle rings.

(14) Magnetos.

(15) Hosiery needles, latch.

(16) Gauges.

In addition to the above, in pursuance of the undertaking given by the President of the Board of Agriculture in the House of Lords on March 19, 1919, the prohibition on the importation of hops will be continued for the present.

It is not proposed to make any addition to the above list unless and until Parliament so determine, with the possible exception that in the event of the contingency foreshadowed in paragraph (*b*) above arising it might be necessary to suspend temporarily all or any of the imports from the country affected by the collapse of exchange.

Export Credits Scheme.

The Board of Trade announce that an office will shortly be opened for furnishing sterling credits in accordance with the scheme for assisting the exportation of goods to certain disorganised parts of Europe, which was referred to by the Prime Minister last week. The credits will be based on bills drawn in this country by the seller of the goods and accepted by the buyer, and will be subject—

(*a*) To the deposit with an approved bank in the country of purchase of currency to an amount required by the office, or

(*b*) To a guarantee of currency of a required amount by an approved bank, or

(*c*) To arrangements for the handing over of produce of the buying country, or

(*d*) To the deposit of securities with the approved bank or the office under the scheme.

The office will fix periodically the amount of currency required to be deposited per 100*l*. sterling, and will have power to vary its charges according to the nature of each transaction. The credits will continue for such periods as the office may determine, but the maximum period will be three years. The charges for each period of six months will be on a rising scale in order to induce early liquidation. The office will be entitled (*a*) to take over and liquidate collateral pledges; (*b*) to have recourse against the acceptor of the bill for any deficiency; and (*c*) to have recourse against the guarantor.

The credits furnished will not, as a rule, exceed 80 per cent. of the prime cost of the goods sold, plus freight and insurance. In special cases the amount may be increased, but in no case will it exceed the prime cost plus freight and insurance. If the proceeds of the bill are less than the prime cost, plus freight, plus insurance, the loss represented by the difference will be divided between the office and the drawer of the bill in the proportion of four-fifths to one-fifth. In each case the charge made by the office is included.

Business will be taken only through banks and on the reports of banks, and the aggregate amount of credit to be granted will not exceed 26,000,000*l*.

The area and classes of goods to which the scheme relates will be settled from time to time by the Government, but credits will not be furnished either for the export of raw material or for the sale of stocks held by Government Departments.

Import and Export Regulations

Morocco Exports.

By order of the Resident-General the following goods are now free from export restrictions: Acorns, canary-seed, caraway-seed, coriander, cumin, and fenugreek seeds; gums and resins, locust-beans, oil-seeds, and crude wax, wool, and wool wastes.

Exports to Germany.

Most of the export business done from this country to Germany up to the present has been either on a "cash with order" or "cash against documents" basis. It may, however, be of interest to know, in case business cannot be arranged on the above basis, that Cox & Company (France), Ltd., 135 Hohestrasse, Cologne, will in some cases grant German firms credits for the payment of goods ordered in Great Britain.

Austrolion Customs Decision.

The Australian Department of Trade and Customs has decided that potato flour for use in the manufacture of medicinal tablets may be imported into the Commonwealth free under the British Preferential Tariff, and at the rate of 5 per cent. *ad volorem* under the General Tariff, as a recognised "minor article" for use in the manufacture of goods within the Commonwealth. Security must, however, be given by the owner that it will be used only for the purpose named, and evidence of such use be given to the satisfaction of the collector within six months after delivery by the Customs.

Trade Report.

42 Cannon Street, E.C. 4, Aug. 28, 3 p.m.

Business in the chemical and drug markets shows some improvement this week and a fair number of price changes have taken place. Export inquiries are good, but in the present uncertainty and shortness of supplies they can only be partially filled. The absolute uncertainty which prevails in regard to the importation of chemicals continues to make business exceedingly difficult and vexatious. It entails endless letters to officials who are not acquainted with actual facts or the consuming requirements of the trade. Moreover, the frequent chopping and changing in the restrictions leaves a sense of bewilderment in the minds of importers, and in many instances the legitimate trade of the country is held up. The consequence is that stocks run short, buyers have to pay higher prices, and there is dissatisfaction all round. In the chemical group, the bromides have slightly advanced, potash crystals being particularly scarce. The future is uncertain, as it is not known what quantities may eventually come from Germany under the Peace Treaty. Phenacetin is slightly weaker owing to arrivals. Lithium carbonate is dearer, and santonin has had the further sensational advance of 180*s.* per lb. —the third in about a month. Silver salts are dearer following the rise in metal. Barbitone, benzoïc acid, and vanillin are easier. Salicylic and tartaric acids are firmer. Japanese refined camphor and menthol are dearer. Glycerin is higher. Interest in drugs centred in the auction this week. Persian galls are dearer; canary, coriander, fennel, and fenugreek seeds are lower.

Higher	Firmer	Easier	Lower
Aloes (Cape)	Camphor (Jp. ref.)	Almond oil	Barbitone
Ammon. bromide	Cream of tartar	Apricot-kernel oil	Canary-seed
Amyl acetate	Glucose	Benzoic acid	Cardamoms
Cannabis ind. (E.I.)	Salicylic acid	Calumba	Coriander-seed
Elemi	Tartaric acid	Dill-seed	Fennel-seed
Galls (Persian)	Turmeric	Farina	Fenugreek-seed
Glycerin (c.p.)		Linseed oil	Hen-yolk
Lithium carbonate		Vanillin	Honey
Menthol			Orange-peel
Petroleum			Palm oil
Potash bromide			Phenacetin
Santonin			Rape oil
Silver salts			
Soda bromide			
Sarsaparilla (Nat. Jam.)			
Senna (Tinn.)			
Shellac			
Turpentine			

Cablegram.

New York (August 28).—Business is active. Menthol has advanced to $7.75 per lb., Mexican sarsaparilla to 50c., and buckthorn bark to 38c. per lb.

Acetanilide has advanced in the United States, but this has little concern for importers, as import licences are not being granted, this being one of the few items that English makers are able to produce in quantities sufficient for the home and export demand.

Acetic Acid.—The price has been raised slightly in U.S.A. for 80 per cent. and glacial, and this, combined with the higher freight charged, compels sellers to quote 67*l.* 10*s.* per ton for 80 per cent. and 80*l.* for 99 to 100 per cent. glacial in casks.

Agar agar is quiet with spot sellers of No. 1 Kobe at 2*s.* 11*d.* per lb. and No. 2 Yokohama at 2*s.* 6*d.*

Almond Oil is easier as raw material is in plentiful supply. English pressers of ol. amygdalæ, B.P., quote 3*s.* 9*d.* to 3*s.* 11*d.* per lb., the lower price being for 1-cwt. lots. *Essential Oil of Bitter Almonds* is 47*s.*, and s.a.p. 52*s.* per lb. *Apricot or Peach Kernel Oil* is easier and in downward tendency, English pressed offering at from 2*s.* 9*d.* to 2*s.* 11*d.* per lb.

Amyl Acetate is dearer at 2*s.* 9*d.* per lb. on the spot. The higher price is attributed to the scarcity of fusel oil.

Anise.—Business has been done in Spanish at 80*s.* per cwt., being steady.

Anise Oil, Star, is quiet with spot sellers of "Red Ship" brand at 4*s.* 3*d.* per lb.

Apricot Kernels.—Chinese are quoted at 65*s.* per cwt., landed terms, and August shipment at 61*s.* 6*d.* c.i.f.

Aspirin.—Prices are unchanged, and rule from 4*s.* 6*d.* to 5*s.* per lb., according to quantity. The quality of the various makes offered continue to show a wide divergence.

Barbitone is rather cheaper at from 27*s.* 6*d.* to 30*s.* per lb.

Benzoates.—*Benzoic Acid* ex toluol is gradually easing in value at from 5*s.* to 4*s.* 9*d.* per lb. on the spot. The home production points to being on a largely increased scale in the near future. The same applies to *sodium benzoate*, which sells at 5*s.* per lb., but is not so plentiful.

Bromides.—The scarcity of potash crystals referred to last week appears to have become accentuated, and, as many parcels have been absorbed, there is little now available, as supplies, for the reasons given in our last issue, are coming forward very slowly. A fair market value for potash is 3*s.* 6*d.*, sodium is 2*s.* 8*d.* to 3*s.* 9*d.*, and ammonium 3*s.* 2*d.* to 3*s.* 3*d.*, the two latter salts offering to arrive at 2*s.* 7*d.* and 3*s.* 1*d.* per lb. respectively. A cautious policy is evidently being pursued in regard to the bromide situation, as the supplies to be taken from Germany by the British Government under the Peace Treaty has an important bearing on the future. It would be surprising, however, if these found their way into the hands of dealers, as although one Government department wishes to encourage trading with Germany, another department refuses to give an indication of how business is to be done. A New York advice dated August 7 reports that potash bromide is out of the market, except in a small way, and makers are unable to give delivery.

Camphor (Refined).—Japanese refined 2¼-lb. slabs have advanced 6*d.* per lb. Up to 14*s.* has been paid on the spot and buyers. 13*s.* 6*d.* c.i.f. has been paid for near-at-hand.

Canary-seed is lower, with sales of good Morocco on the spot at 170*s.* to 172*s.* 6*d.* per quarter.

Caraway-seed is quoted 107*s.* 6*d.* per cwt. for Dutch and 90*s.* nominally for North African.

Carbolic Acid is very firm at 9½*d.* per lb. for 39° to 40° C. crystals in large bulk packing from makers. The export demand is very large, and a further improvement would not be surprising.

Cassia Oil.—Spot sales of 80 to 85 per cent. c.a. have been made at 7*s.* 6*d.* per lb.

Chloral Hydrate is unchanged, with little doing in dealers' hands. For some time past the Government appears to have had stocks to dispose of.

Cinchona.—At auction on Tuesday 913 packages offered, of which about 300 sold at steady prices; of East Indian 218 bales offered and 172 sold comprising Succirubra chips at 2*s.* 3⅛*d.*, stem chips 2*s.* 2*d.* to 2*s.* 2¾*d.*, and red root at 2*s.* 1*d.*; of 560 bales Calisaya offered 33 sold, including quills and chips at 2*s.* 2½*d.* to 2*s.* 2⅝*d.*, and broken at 1*s.* 9*d.* Of Java 55 bales offered and 28 sold at 1*s.* 2*d.* for dusty Ledgeriana chips. In the drug auction 15 bales fair hard flat thick Cartagena were bought in at 1*s.*

Cinnamon has been in good demand. Fine Ceylon qualities are quoted at from 2*s.* 2*d.* to 2*s.* 5*d.*, usual firsts at 1*s.* 10*d.*, seconds, 1*s.* 9*d.*, thirds, 1*s.* 8*d.*, fourths 1*s.* 7*d.*, and chips at 9*d.* per lb. on the spot.

Cinnamon-leaf Oil is easy, with spot sellers of Ceylon at 7½*d.* per oz.

Citric Acid is steady at 4*s.* 4*d.* per lb. The U.S.A. continues to be a very heavy consumer of citric acid, but the makers can deliver small quantities only.

Cloves have been quiet, with spot sellers of Zanzibar at 1*s.* 9*d.* per lb.

Cocaine is steady at 25*s.* per oz. for hydrochloride. Home trade is quiet, but there is a good export demand.

Codeine.—There is a large export demand, but the refusal of permits prevents it being fully satisfied.

Coriander-seed is lower at 27*s.* per cwt. for good Morocco.

Coumarin is a product which appears to be filtering through from Germany to France and Switzerland, whence it loses its original identity. From 47*s.* 6*d.* to 50*s.* are the current market values.

Cream of Tartar is rather firmer at 240*s.* per cwt. for 99 to 100 per cent. powder, as actual spot stocks have dwindled. To arrive, 220*s.* c.i.f. is quoted.

Creosote Carbonate is quoted at 42*s.* 6*d.* per lb., but is not plentiful on spot.

Cumin-seed is steady with further business at 50*s.* per cwt. for good sifted Morocco.

Dill-seed can be bought at 25*s.* to 26*s.* per cwt., according to quantity.

Farina is quiet and easier with sellers of No. 1 Japanese at 47*s.* 6*d.* per cwt. Afloat is quoted at 46*s.* 6*d.*, and

September-October shipment at 46*s.* per cwt. c.i.f. Sweet potato flower is cheaper at 40*s.* on the spot.

Fennel-seed is quoted 36*s.* per cwt. for fair East Indian.

Fenugreek-seed is lower at 18*s.* to 19*s.* per cwt. for fair to good Morocco.

Formaldehyde meets with an active export demand, and business has been done at 130*l.* to 135*l.* per ton, and even higher in some instances. The price of methyl alcohol has been advanced in America.

Galls.—Persian is dearer, following on the recent advance in Chinese. Blue on the spot is quoted at 130*s.*, and green at 120*s.* per cwt.

Glucose is dearer at 60*s.* per cwt., duty paid, for American water-white liquid, landed terms.

Guaiacol Carbonate.—Stocks on the spot are still fairly plentiful, and can be had at 25*s.* per lb.

Gum Acacia remains firm, ordinary Sudan sorts offering at 70*s.* and cleaned at 80*s.* on the spot. Bleached is worth from 100*s.* to 120*s.*, as to quality.

Glycerin.—The English distillers have raised the price of chemically pure by 5*l.* per ton. This is a nominal advance in order to cover the increased cost of distillation.

Hen-yolk is lower, with sellers of Chinese 2 per cent. boric acid at 205*s.* per cwt. on the spot, afloat at 180*s.*, and August-October shipment at 175*s.* c.i.f. Dried whole on the spot is 3*s.* to 3*s.* 3*d.*, and afloat 3*s.* c.i.f. Dried yolk is easier at 2*s.* 2*d.* per lb. on the spot and 2*s.* 1*d.* c.i.f. for July-September shipment. *Albumen* is 5*s.* 0½*d.* per lb. for prime Chinese egg on the spot and 4*s.* 11½*d.* c.i.f. for July-September shipment.

Hexamine keeps steady at 5*s.* 9*d.* per lb. on the spot, and 5*s.* c.i.f. to arrive.

Hydroquinone is unchanged at from 11*s.* 6*d.* to 12*s.* 6*d.* per lb. on the spot.

Linseed is quiet at 56*s.* per cwt. for druggists' quality.

Lithia Carbonate.—With a revival in the demand, prices are rather higher at from 8*s.* 6*d.* to 9*s.* per lb.

Menthol is dearer, with spot sales of Kobayashi-Suzuki at from 36*s.* to 37*s.* per lb.; combined with oil, 42*s.* 6*d.* c.i.f. has been paid for stuff afloat.

Methyl Salicylate is unaltered at from 3*s.* 6*d.* to 4*s.* on the spot.

Milk-sugar continues to vary in price, finest Dutch offering at 220*s.* to 225*s.* per cwt., and New Zealand at about 212*s.* American, however, is appreciably cheaper, and is offering at about 200*s.* to arrive, but the difficulty would be to obtain an import licence.

Mint Oil is steady, with spot sales of Japanese dementholised (Kobayashi-Suzuki) at 7*s.* 3*d.* per lb.

Mustard-seed is scarce, and 87*s.* 6*d.* to 90*s.* per cwt. is asked for good quality of last year's crop.

Nux Vomica shows little demand, the large consumers appearing to be well stocked.

Oils, Fixed.—*Linseed* is easier at 110*s.* net per cwt. on the spot, naked, ex mill. Hull (spot) is 105*s.*, and September-December delivery 106*s.* naked. *Rape* is firm at 105*s.* for crude and 110*s.* for refined. *Cotton-seed* is also firm at 105*s.* for crude and at 115*s.* for refined, naked, ex mill. Refined *Soya* is 110*s.* (maximum price), afloat is 88*s.*, and September-November shipment 90*s.* per cwt. c.i.f. Chinese *Wood* oil is unchanged at 130*s.*, and to arrive 121*s.* 6*d.* c.i.f. is quoted; arrivals from China are small. Japanese *Fish* oil has been sold at 77*s.* per cwt., and Newfoundland *Cod* oil has been in brisk demand at 78*s.* per cwt. Lagos *Palm* oil is lower at 84*s.* 6*d.* in Liverpool, and softs 84*l.*

Opium.—A fair business is passing on the basis of the lower prices recently established. Turkey (11 per cent.) can be had at 19*s.* per lb. London terms, and Persian (10 per cent.) at from 50*s.* to 55*s.* Between 60 and 70 cases of the latter description have been shipped to Japan from London this week, said to be for "manufacturing purposes," and up to 60*s.* was paid. The question may be asked, why should the Japanese buyer pay such an extremely high figure for opium for "manufacturing purposes" when he can fill his requirements equally well from Turkey opium at 19*s.*? A Smyrna advice dated August 15 states that the market keeps steady as regards the piastre price per oke, but the heavy fluctuations in the exhange of the cheque in sterling is liable to make the shilling quotation 1*s.* to 2*s.* per lb. higher or lower. Two weeks ago opium was at ps.750 per oke, and exchange ps.400 per £ sterling, and to-day is still ps.750 per oke, but exchange at ps.350, making a difference of 2*s.* 6*d.* per lb. higher. The sales this week amount to 45 cases, at 8*s.* to 12*s.* per lb. for low grades and 16*s.* to 17*s.* for 11 and 11½ per cent. manufacturing.

Paraldehyde.—There are still a few second-hand parcels offering on the spot at 5*s.* 3*d.* per lb.

Pepper is quiet but steady, with sales of fair *black* Singapore at from 1*s.* 0½*d.* to 1*s.* 0¾*d.* per lb. Sales to arrive include August-October at 10¾*d.* c.i.f. Fair Tellicherry is 1*s.* 2¼*d.*, and Aleppy 11½*d.* per lb. on the spot. *White* pepper is also quiet, with spot sellers of Singapore at 1*s.* 4¾*d.*, and Muntok at 1*s.* 4¾*d.* To arrive, September-November shipment has been sold at 1*s.* 4*d.* per lb. c.i.f.

Peppermint Oil.—Cables have been received from the United States quoting the higher prices of 36*s.* to 37*s.* to come forward for finest tin oil, and on the spot 40*s.* is quoted. The following appeared in the New York "Drug and Chemical Market" (August 13):

> Down to $6.00 a pound for regular oil is being quoted in this market, and from this figure up to $6.50 is heard. At present the market is just between crops, with sellers attempting to get rid of all their old stuff and at the same time get the best price obtainable without holding any over when the new crop comes in. The oil is in a rather indeterminate position, the price of the new depending upon the size and quality of the crop, but at the same time it is almost certain that the price will be materially lower than $6.00. In the growing districts $5.00 is being openly quoted for spot old crop oil. Large acreage is planted in peppermint this year, induced by the high price, and a heavy return is well assured.

Petroleum was advanced 1*d.* per gallon on Friday last to 1*s.* 6½*d.* for ordinary refined American and 1*s.* 7½*d.* per gal. for water-white.

Phenacetin is rather irregular. Some shipments from the United States are being landed, but they are being readily absorbed; 21*s.* to 20*s.* is quoted, as to quantity and seller.

Phenazone is quiet at from 27*s.* 6*d.* to 28*s.* 6*d.* per lb. on the spot, as to quantity.

Phenolphthalein.—With the prospect of phthalic anhydride being appreciably lower before long, a reduction in phenolphthalein is likely to follow.

Pimento is quiet, with spot sellers at 5¾*d.* per lb.

Potash Binoxalate.—English make is now on the market again, offering at from 1*s.* 8*d.* to 1*s.* 8½*d.* per lb., as to quantity.

Potash Permanganate is readily obtainable at 3*s.* 3*d.* per lb. on the spot.

Potash Prussiate.—Red is obtainable at 6*s.* per lb., but the sale appears to have fallen off.

Quinine.—Contrary to the Mincing Lane rumour of the possibility of a slight reduction in price in the near future, it is now stated that there is no prospect of any reduction, as the existing stocks are insufficient to supply the world's demand, and another twelve months may elapse before conditions again become normal.

Saccharin.—The demand for export is unprecedented, and cannot be fully satisfied from this country. Export price is tending higher, and in some instances 21*s.* to 22*s.* per lb. in bond has been paid. The price in America (August 13) was $3.40 to $3.60.

Salicylic Acid.—Dealers who have made favourable contracts are still able to offer B.P. acid powder at 2*s.* 6*d.* per lb., but makers are asking more.

Santonin.—A further rise was announced this week, amounting to 400*s.* per kilo., or 180*s.* per lb. The quotations current are: 25 kilos., 453*s.* 6*d.*; 10 kilos., 471*s.* 6*d.*; and five kilos., 489*s.* 6*d.* per lb. net.

Senega.—According to a New York advice dated August 7, senega continues very strong, with little new crop offering; $1.55 to $1.60 is quoted for spot goods.

Shellac.—A further appreciable advance has taken place in the spot, arrival, and delivery markets. Usual standard TN Orange quality has been sold at from 470*s.* to 485*s.*; fine Orange is quoted at 500*s.* to 510*s.*, and cakey AC Garnet at 375*s.* to 380*s.* To arrive TN afloat has been sold at 450*s.* per cwt. c.i.f., and in futures a good business has been done at substantially higher prices, including October delivery at 476*s.* to 490*s.*, and December at from 478*s.* to 490*s.* per cwt.

Silver Salts, like nucleinate and proteinate, are dearer, following the rise in the metal.

Soda Hyposulphite keeps firm, with makers heavily sold for forward, but deliveries are slow. About 23*s.* 6*d.* to 24*s.* per cwt. is quoted for pea crystals.

Soda Salicylate still commands 3*s.* 6*d.* per lb. in contract quantities, and the output is quickly absorbed.

Tartaric Acid.—Powdered, which is scarce, on the spot commands 3*s.* 3*d.* per lb., and crystals 3*s.* 2½*d.*

Turmeric.—Cochin split bulbs are held for the higher rate of 47*s.* 6*d.* per cwt., and Bengal finger is also dearer at from 33*s.* 6*d.* to 35*s.* Madras finger is 55*s.*

Turpentine has met with an active demand at higher rates, up to 129*s.* per cwt. having been paid for American on the spot, also September-December shipment at 128*s.* 6*d.* to 130*s.*, and January-April shipment at 130*s.* to 133*s.*

Vanillin.—As regular importers are being granted licences to bring forward 50 per cent. of their 1915 imports, the market is easier, with some anxiety of holders (also in the provinces) to clear, and this, added to the arrival of shipments, finds sellers at from 65*s.* to 70*s.*, and a trifle less

in some instances. New York reports a heavy export demand, with 65c. to 69c. quoted for limited quantities only.

Wax, Vegetable.—Japanese is quiet, with spot sellers at 97*s.* per cwt.

London Drug-auctions.

London Commercial Sale Rooms,

Mincing Lane, E.C. 3, August 28.

A moderate quantity of drugs offered at auction, and met with rather more general demand than usual. Cape aloes improved in value by about 2*s.* per cwt., and were in better request. Balsam tolu was steady, and for fine Sumatra benzoin full to rather dearer prices were paid. Cassia fistula sold at an advance of 2*s.* 6*d.* per cwt. Calumba is easier, and cardamoms met a dragging demand at easier rates, practically no fine pale being offered, although arrivals of the spice have been large. Bombay cannabis indica is held for an advance of 4*s.* per lb. Honey met with a poor demand, and is rather cheaper. Matto Grosso ipecacuanha proved slow in auction, the demand being met by the sale of a new lot of East Indian. Kola is about steady, meeting with a fair demand Fine Aden myrrh brought very full prices, although large arrivals have taken place. Nux vomica is easier, and the large consumers are well supplied. Orange-peel is also easier on sale without reserve. Chinese rhubarb maintains its previous high values, and for sarsaparilla there was a good demand, native Jamaica in particular being 1*d.* to 2*d.* per lb. dearer. Tinnevelly senna is 1*d.* to 1¼*d.* per lb. dearer all round, but for Alexandrian there was no demand. Beeswax was quite neglected.

		Offered	Sold
Aloes—			
Cape	(cs.)	136	41
Curaçao ...	(cs.)	50	0
Socotrine ...	(kegs)	20	2
Ammoniacum		1	1
Anise star (Ch.) ...		1	1
Annatto-seed		27	0
Areca		30	0
Argol		110	*4
Arnica-flowers		16	0
Balsam Peru		11	0
Balsam tolu		10	4
Bayberry-bark		5	0
Bay-leaves		82	0
Beef-tea cubes	(tins)	2500	0
Belladonna-leaves ...		30	0
Benzoin—			
Siam		15	0
Sumatra		393	50
Bergamot oil ...	(tins)	3	0
Blackhaw-bark		12	0
Calabar-beans		56	0
Calumba		289	0
Cannab. ind.		28	0
Cantharides		20	2
Cardamoms		565	5
Cascara sagrada ...		97	30
Cascarilla		4	0
Cassia fistula		41	7
Celery-ground		25	0
Chaulmoogra oil ...		1	0
Chiretta (Ind.)		55	0
Cinchona		15	0
Cinnamon oil		10	0
Coca-leaves		184	10
Cocculus indicus ...		10	*10
Cochineal		20	0
Cod-liver oil (Newf.)	(brls.)	8	0
Copaiba ...	(drms.)	5	0
Cumin-seed		94	0
Cuttlefish-bone ...		405	100
Digitalis		102	0
Dragon's-blood ...		27	0
Elecampane-root ...		10	0
Elemi		34	34
Eucalyptus oil		40	0
Fennel-seed		20	0
Gamboge		10	0
Gelsemium		22	0
Gentian		60	0
Grindelia rob.		53	0
Guaiacum		1	0
Gum acacia		1	1
Gum karaya		84	0
Gurjun oil		50	0
Hellebore		2	0
Henbane (Egy.) ...		34	0
Honey—			
Argentine		59	0
Australian		100	0
Californian		144	144
Cuban		135	0
Dominica		4	4
Haitian		39	0
Honolulu		69	0
Jamaica		336	30
New Zealand ...		100	10
St. Lucia		106	18
San Domingo ...		62	20
Trinidad		22	0
Ipecacuanha—			
Cartagena		7	4
East Indian		40	40
Matto Grosso ...		13	5
Minas		8	0
Insect-flowers		2	0
Jalap (V.C.)		14	0
Juniper-berries ...		106	0
Kola		178	44
Lemongrass oil	(pot)	1	1
Lime-juice ...	(pns.)	10	0
Lime oil		1	0
Liquorice-juice	(cs.)	40	20
Mint oil (Kob.)		10	0
Myrrh		65	5
Nux vomica		32	32
Olibanum		112	5
Orange oil ...	(bxs.)	5	0
Orange-peel		87	10
Orris (Flor.)		63	0
Papain	(cs.)	9	0
Rhapontica		43	2
Rhatany		21	0
Rhubarb (Ch.)		11	3
Saffron	(tins)	6	3
Sarsaparilla—			
Grey Jamaica ...		62	44
Lima		55	6
Mexican		8	0
Native Jam.		63	54
Scammony-root ...		100	100
Senna and pods—			
Alex.		135	0
Tinnevelly		251	156
Simaruba		20	0
Slippery elm		15	0
Squill		66	0
Strophanthus		48	0
Tamarinds—			
West Indian		140	0
East Indian		48	10
Tonka beans		3	1
Turmeric		363	0
Valerian (Belg.) ...		5	0
Vegetables, dr. mixed	(brls.)	58	0
,,	(cs.)	543	0
Vermicelli ...	(cs.)	815	0
Wahoo-root		22	0
Wax (bees')—			
Abyssinian		86	0
East African		588	0
East Indian		147	0
Jamaica		9	0
Madagascar		205	0
Morocco		13	0
Zanzibar		26	0
Wild-cherry bark ...		13	0
Witch-hazel leaves ...		14	0

* Sold privately.

Aloes.—Cape were in better demand at an advance of about 2*s.* for firsts. Twenty cases fair bright firsts (20 per cent. tares) sold at 56*s.* to 57*s.*, and eight cases good seconds at 54*s.* to 55*s.* Three cases common dull seconds realised 51*s.*, a single case of ordinary dull went at 47*s.*, and four packages loose collected and sweepings realised 36*s.* Twenty cases fair firsts had been sold privately. Two kegs of ullaged Socotrine sold at 120*s.* per cwt.

Ammoniacum being extremely scarce, a single case that offered met with keen competition, selling at 215*s.* per cwt. for fair almondy rather dark block.

Balsam Peru.—Six cases (cinnamein-content 60.2 per cent.) were limited at 17*s.* 6*d.* per lb.

Balsam Tolu sold at firm rates, four cases of fair selling at 6*s.* 9*d.* per lb.

Benzoin.—The offerings of Sumatra were practically 400 packages, for which there was a fair demand, finest quality being "full up" to rather higher. Twenty cases very good seconds, packed with small almonds, realised from 11*l.* 10*s.* to 11*l.* 15*s.* Ten cases good fair seconds sold at 9*l.* 15*s.*, and four cases fair seconds went at 9*l.* 5*s.*; 16 cases middling seconds, partly country cut, realised 8*l.* 10*s.* to 9*l.* per cwt., subject.

Calabar Beans.—A lot of 56 bags fair was obtainable at 6½*d.* per lb.

Cannabis Indica.—Fair Bombay tops, which were obtainable at 16*s.* per lb., are now held by importers for 20*s.*, this price being wanted for a single case in auction. Four bags loose and stringy Cape were held at 1*s.* 11*d.*

Cantharides.—Two cases of ordinary slightly broken Chinese sold without reserve at 4*s.* per lb. Ten boxes of good Russian were retired at 13*s.* per lb.

Cardamoms.—Although large arrivals have taken place lately, the auctions to-day brought out nothing of fine quality, and as the demand proved dragging, 3*d.* to 6*d.* per lb. lower rates were accepted, the following prices being paid: Ceylon-Mysore, extra bold, palish long, 7*s.* 2*d.* to 7*s.* 3*d.*; part split, 7*s.*; medium to bold brown, 5*s.* 9*d.* subject to 6*s.*; small splits, 4*s.* 4*d.* to 4*s.* 5*d.* Ceylon-Malabar, small brown, 4*s.* 4*d.*; seed, 3*s.* 5*d.*; split seed, 2*s.* 9*d.* Aleppy, fair small brown, 4*s.* 11*d.* to 5*s.* 1*d.*; *seed*, 3*s.* 3*d.* to 3*s.* 6*d.*, the latter for good brown. Mangalore, small to medium brown, 4*s.* 6*d.* to 5*s.*; small brown, 4*s.* 2*d.*

Cascara Sagrada.—A parcel of 97 bags 1919 import offered, 115*s.* being wanted for fair thin bark.

Cassia Fistula is about 2*s.* 6*d.* per cwt. dearer, four bags Dominican pod selling at 170*s.*, and three cases fair, partly wormy, realised 170*s.* per cwt., subject to seller's approval.

Coca-leaves are more plentiful. Ten bales of fair greenish Truxillo leaf sold at 2*s.* 6*d.*; fair brownish Huanuco also offered at this figure.

Cuttle-fish Bone.—A lot of 100 cases fair small to bold East Indian sorts sold at 8*d.* per lb., and dull sorts went at 5*d.*

Dragon's-blood remains very dear, from 14*l.* to 15*l.* per cwt. being asked for very common to ordinary dull slab.

Elecampane-root.—A lot of ten bags offered, and a bid of 1*s.* per lb. is to be submitted, the limit being 1*s.* 1*d.*

Elemi was about 60*s.* per cwt. dearer compared with the previous auction, 34 cases being disposed of at 190*s.* per cwt. for fair pale to yellowish.

Eucalyptus Oil.—Forty cases (66 to 67 per cent. eucalyptol) were limited at 2*s.* 6*d.*, and 20 cases (70 per cent.), tins badly rusty, at 2*s.*

Gurjun Oil.—Fifty drums from Singapore were limited at 2*s.* 3*d.* per lb.

Honey proved slow of sale, and prices were easier. Of Jamaica small sales were made, including good set palish to pale at from 77*s.* to 84*s.*; 18 cases St. Lucia sold at 65*s.* to 68*s.* for dark to darkish liquid, and four cases brown liquid Dominican sold at 65*s.* 20×5¾ cwt. casks San Domingo had been sold privately. Ten cases New Zealand sold at 120*s.* for pale to canary set, and 140 cases Californian also sold at 80*s.* for dark amber to palish setting.

Ipecacuanha.—A new lot of 40 bales East Indian offered and sold at 12*s.* per lb. for fair native picked, and siftings went at 11*s.*, the broker being disposed to meet the market. Matto Grosso and Minas were slow of sale. Eight bales ordinary leanish to fair Minas were limited at 13*s.* 6*d.* per lb., and eight bales Matto Grosso were held at 14*s.*, the highest bid for a bale being 13*s.* 8*d.* At the close of the auction five bales Matto Grosso sold at from 13*s.* 6*d.* to 13*s.* 10*d.* for ordinary greyish to fair. Private market is firm, and up to 14*s.* has been paid. Seven bags (a new lot) fair Cartagena offered, and four sold at 12*s.* 4*d.*

Kola was easy; 40 bags fair small African quarters, a few shrivelled, sold at 6*d.* per lb., subject to approval (afterwards confirmed). For a further 16 bags African held in another interest 7*d.* was wanted; 100 bags Java were

limited at 7*d.*, and four bags fair Jamaica sold at 6½*d.* per lb.

Lemongrass Oil.—A single pot of 200 lb. (77 per cent. total aldehydes) sold at 5*d.* per oz.

Liquorice-juice.—Forty cases (Negro) sticks offered, and 20 sold without reserve at 170*s.* per cwt.

Myrrh fully steady, five bags very good pale Aden sorts, slightly blocky, selling at 18*l.* per cwt. A further seven bags were retired at 20*l.*

Nux Vomica is cheaper, 22 bags Bombay and ten cases selling at 32*s.* 6*d.* and 31*s.* per cwt. respectively.

Olibanum.—Good pale drop was obtainable at 160*s.*, and for five bags of siftings in hard block (sea-damaged) 19*s.* was paid without reserve.

Orange-peel was cheaper, ten cases of fair bright Tripoli strip selling at 1*s.* 4½*d.* to 1*s.* 5*d.* per lb. Ten cases fair strip offered without reserve, but no bids were made.

Orris.—A lot of 63 bags fair Florentine sorts was held at 105*s.* per cwt.

Rhapontica.—Two cases Chinese sold at 2*s.* 6*d.* per lb.

Rhubarb.—Firm. A single case of small round and druggists' trimming Shensi, with three-quarters fair pinky fracture, sold at 9*s.* per lb. Two cases of small to medium round Canton, with three-quarters greyish pinky fracture, were retired at 10*s.*

Saffron.—Two tins of Spanish sold at from 54*s.* to 55*s.* per lb.

Sarsaparilla was in good demand, a string of 51 bales native Jamaica selling at from 1*s.* to 1*s.* 4*d.* per lb. for red and yellow, being 1*d.* to 2*d.* per lb. dearer. Of genuine grey Jamaica 46 sales sold at steady rates, from 2*s.* 3*d.* to 2*s.* 6*d.* being paid for mouldy and 2*s.* 9*d.* to 2*s.* 10*d.* for slightly mouldy; five bales Lima-Jamaica sold at 2*s.* 6*d.*, being steady.

Scammony-root.—A parcel of 100 bags (14.1 per cent.) offered, and sold without reserve at from 27*s.* to 32*s.* per lb.

Senna.—Tinnevelly leaf was 1*d.* to 1¼*d.* per lb. dearer, and in fair demand. For good greenish 9*d.* was paid for a single bale; the bulk sold at from 6¾*d.* to 7½*d.* for fair small greenish, and 5½*d.* to 6½*d.* for middling to fair. *Pods* sold at from 3¾*d.* to 4¼*d.* for sea-damaged to fair, about 40 bales being disposed of. Of Alexandrian 96 bales offered, but nothing sold. Fair broken leaf was held at 1*s.* 9*d.*, siftings at 9½*d.*, and pale pods at 1*s.* 6*d.*

Tamarinds.—Ten bundles of fair East Indian sold at 50*s.* per cwt., at which sales have been made privately.

Tonka Beans.—Four cases partly brown and foxy Para were held at 2*s.* 3*d.*, and a case of ordinary brownish Para sold at 2*s.* 2*d.* per lb., subject.

Valerian.—Five bales fair Belgian were held at 220*s.* per cwt.

Wax (Bees'), slow of sale; seven packages fair red and yellow Jamaica were held for 11*l.* 10*s.*, and Mozambique pipe and block of good quality was freely offered at 9*l.* to 9*l.* 5*s.*, Zanzibar block of mixed colours part drossy at 8*l.* 12*s.* 6*d.*, also Abyssinian and Madagascar block at 8*l.* 17*s.* 6*d.* to 9*l.*

Prompt Day.

In consequence of the earlier closing of banks on Saturdays, it has been agreed by the chemical and general produce trades that all accounts will in future be collected and paid on Fridays. Five years ago it was said by an eminent authority that Saturday is fast becoming a *dies non* in the business world, and the war has now accelerated the pace—among principals.

Morphine Smuggling.

The United States and Japan both ratified the International Opium Convention, but in view of the following information from the "Evening Standard" they seem to have reduced the Convention to another "scrap of paper" already:

"Morphine smuggling, which during the war went on between Japan and China on a colossal scale, has now been stopped as far as imports of morphine from Great Britain are concerned, but large quantities are still coming from America," says the "Evening Standard." Interesting figures on this point have been obtained by the "Japan Chronicle." From these it appears that the importation of morphine by Japan from England amounted in 1917 to 600,000 oz., Japan's requirements being covered by her own production, and the whole of this supply was absorbed in the illicit trade with China. Last year the matter was brought to the notice of the British Government, which intimated that no morphine would be exported to Japan unless under licences from the Japanese authorities, and the British trade came to a complete standstill. The illicit dealers then turned to the United States, and during the first five months of the present year 113,000 oz. of morphine arrived in Kobe from America, and were transhipped into vessels for China without passing through the Customs or figuring in the official returns."

Bromine and Potassium in Tunis.

The necessity of procuring bromine for war purposes induced the French Government to send a commission in 1915 to Tunis to study the local deposits, with the result that the fields of Sebkha el Melah, with the two factories of El Haleche and Aïn es Serah, now rank among the largest producers in the world. At present ("Journ. de Pharm. Chim.," August 1, 1919) they supply 80 tons of bromine monthly, and this will shortly be increased to 130 tons. The waters, concentrated by exposure to the sun, yield 8 kilos. of bromine per cubic metre, the bromine being extracted by displacement with chlorine in a columnar apparatus. The potash is obtained either by precipitation with fluorosilicic acid or by a magnesium liquor, which yields an artificial carnallite. One factory has already produced over 2,500 tons of potassium chlorate.

American Chamber of Commerce.

At a meeting of the Advisory Committee on Drugs, Chemicals and Dyestuffs held on August 18, Mr. Withy (J. E. Ellis) brought up the point that licences were being refused for all coal-tar derivatives and also for phenacetin, aspirin, acetanilid, the reason being given that the quantity manufactured in this country was sufficient to supply the demand. Mr. Withy said that when he was informed of this at the Department of Import Restrictions, he telephoned from there to two firms they had named as being able to supply phenacetin. The first had none and the second could only let him have 1 lb. As a matter of fact, there were only four firms making it, and only one—Boots—in at all large quantities, and that was entirely for their own use. The Committee were agreed that because the demand was so much greater than the supply, which was limited owing to the fact that none was coming into the country, the prices were prohibitive. Some members, however, were of the opinion that the Government were fully alive to this fact and were watching the situation closely. As soon as they had satisfied themselves that any supplies were being held up in order to sell when the price should rise, the Government would allow freer imports to bring down the price. It was decided that it would be well to point out to the Board of Trade that the prices had been forced up by the import prohibition. It would also show them we were watching the situation, and soundly based recommendations could only enhance the reputation of the Committee with both trade and Government.

Mr. Frothingham suggested that the price argument might not produce results in regard to phenacetin if it were really impossible at present for British manufacturers to manufacture it here at a lower price. The Board of Trade would probably be inclined to protect this industry in so far as seemed called for. The best argument with the Board of Trade would seem to be a presentation of the consumers' part. The following resolution was drafted and proposed by Mr. Withy (John E. Ellis & Co.), seconded by Dr. Bebie (Monsanto Chemical Works), put to the meeting, and carried.

"While it is understood that the British Government is fully justified in protecting home industries to the greatest extent, we venture to suggest that consumers should also be considered, and inasmuch as salicylates, phenacetin, vanillin, phenolphthalein, coumarin, etc., have practically doubled in price since the import restrictions were in force, the American Chamber of Commerce in London would respectfully suggest that licences be more freely granted commensurate with the laws of supply and demand, as quantities now being manufactured here are far too inadequate to meet the demand.

A Curriculum for Juniors.

Sir,—"Let's say no more." The trade generally is ashamed of the whole by-law business. What we all feel we want is to get out of the mess as quickly as possible. I had hoped the Council would have resigned, but that hope seems gone. After all, it is no use railing at the Council. For thirty years the wrong ideas have prevailed. Next May you may put in new men, but the wrong ideas will prevail; in fact, the new men seem more determined to stick to all the old privileges and the old wrong ideas, and most of the local Associations will keep them to it. I was not enamoured of the by-law myself; but I know that the Privy Council is tied down to certain rather clumsy ways of its own, which "get there" without having to go to Parliament. I hoped it would split the Society from top to bottom; failing that, I recognised the by-law as a mere spur to waken the Pharmaceutical Council from its thirty years' sleep. The by-law is a mere beginning. But if the men outside the Society desire to go to the Privy Council to oppose the new Bloomsbury schemes, then they must first get rid of every vestige of the old wrong ideas; and here we might well take lessons from the doctors. Their Jonahs soon get heaved overboard. In 1900 they decided to do away with the old unqualified assistants; therefore they stirred up the Apothecaries' Hall, and 500 young dispensers were supplied yearly who do a lot of the doctor's work when he is out—at golf. In 1918 Latin proved a hindrance to young medicos; they heaved it overboard at once. But the doctors are logical and well educated, while many chemists are simple-minded men whose examinations taught them nothing useful. Seeing that emigration is likely to be the chief industry in the British Isles for the next ten years, assistants will scarcely want to open new shops in face of the facts of (nearly) 700 Boots' shops, (over) 7,000 co-operative drug departments, (over) 70,000 little shops all keeping drugs, (and the certainty of) 10,000 new public dispensaries in hospitals, schools, clinics, etc., all under the new Health Department, and all severely controlled by doctors, with all patent-medicines watched for extravagant claims, thus tending to keep down even the patent sales. There will still be a good chance for half of the present private drug-shops, but any man who owns or works in such will have to be widely experienced, so that I see no reason to be afraid of the few men whom the by-law will bring in. If they become buyers of businesses surely they are an asset to the trade, which has had to sell off at least fifty businesses a year by auction for the past twenty years simply for want of buyers. So why worry? You refused to have my curriculum. Now you are being forced to swallow it in chunks, because of your long delay. Our real problem is still untouched by the by-law or by the new curriculum scheme. Thirty thousand young women from Board schools are the only kind of labour we are likely to get in shopkeeping for the next twenty years until the engineering boom exhausts itself (as it will). They are birds of passage. "Business life only five years," says Cumming, of the Cheshire Association. They have many good points and many weak ones, but we have no choice. With patient teaching and my curriculum we can make them as valuable as Board-school teachers; but the new Bloomsbury curriculum ignores their existence and pretends that others of a better class are available. The Pharmaceutical Council have relied for years on the fact that none of the men like myself who are commercially minded and have to run their businesses on lines to suit their public have hitherto told the Privy Council the truth about Bloomsbury. The Pharmaceutical Council only represent about half of the men in business, and they misrepresent quite 50 per cent. of them. They produce "scheme after scheme" "and dream after dream," as X-rayser I. said. They have driven away hundreds of masters and thousands of men into other ranks of life; they have utterly neglected the 30,000 young women who are our apprentices (so-called) of to-day; and they have for twenty years raised silly barriers in the examinations merely to get fees, which has disgusted many a good and well-prepared student, without helping to keep out the worthless and incompetent who often know how to "kow-tow" to examiners. Their stupid persistence in pursuing a wrong ideal of professionalism is merely an ingrafted wrong notion. Therefore, keeping in mind the fact that this curriculum of mine has been before the trade for years and been blessed by several prominent men and by several associations, I propose to bustle round this week and to get ready to lay the following points before the Privy Council. To save time I will suggest that the curriculum which would help us would be that advocated by me and printed in the *C. & D.*, September 21, 1918, the main points of which are:

A. That the Registrar take a census of the assistants in the retail trade who are actually engaged in handling drugs and who are unqualified, and report to the Privy Council.

B. That each student who had one month's experience be given a place in Registrar's ledger, and be written to twice a year in regard to study until qualified.

C. That the principle be adopted of earning marks from the start right up to the Qualifying examination.

D. And that a curriculum for juniors be arranged at once on the lines advocated by Jay Mack.

E. With fees drastically reduced to sums more in accord with the earnings of juniors, and with local scholarships where possible or necessary.

F. And that the examinations be in easy steps—one for every year of experience of such juniors; to be held as many times a year and in as many centres as experience shall indicate.

G. And that all senior examinations be conducted on the same simple principle: fees reduced, and each subject passed to stand good.

These points will appeal to the great majority of chemists as being highly desirable and immediately applicable to all of our junior staff, while it will not interfere with the new curriculum for seniors from high-class shops, which I maintain are the only students who can attempt the new scheme put forward by Bloomsbury. No money or meetings are needed, but I should appreciate postcards or letters bearing the sender's business address from any chemists who are disgusted with things as they are, and who know that no progress can be got from meetings and no help can be looked for from the present Council. Let us try to get hold of the man who wields the "Big Stick" down Whitehall way. He seems to know how to get things done.

Jay Mack.

Diluting the Qualification.

Sir,—May I trespass a little further on your valuable space to remind "One of the Craft" (*C. & D.*, August 23, p. 71) that the Pharmacy Act was not passed to restrict the pharmacist to the sale of poisons, but to confine the sale of poisons to men who had been trained and educated in handling such preparations. The passing of the examination is the outward and visible sign that a man has completed his training successfully. Possibly examination is not the ideal way of testing a man's capabilities, but at the present day it is the universally accepted method, and we must make the best of it until a better is discovered. Before the Pharmacy Act was passed anyone who had a grudge against his fellow-man could purchase poison with such ease that the danger became so pressing as to necessitate legislation; we do not wish to return to such a state of affairs. Even now, admitted that registered pharmacists deal in side-lines to make up their expenses, this would not be so necessary if England were not in this matter so far behind other countries and if dispensing were confined to pharmacists and prescribing to doctors. Most Continental people would shudder at the idea of the same man being allowed to dispense the medicine and to write out a death certificate afterwards.

Yours faithfully,

Chas. Hamus.

Local Associations Executive Election.

Sir,—Permit me to thank the electors of Group 2 L.A.E. for the generous support they gave me.

Yours truly,

Wrexham. Jas. B. Francis.

Sir,—May I through your columns thank those who contributed to my election on the L.A.E.? My endeavours will be directed to the increase of the remuneration of N.H.I. dispensing and the closer co-operation of all units in pharmacy. J. E. French, M.P.S.

Sittingbourne.

Sir,—May I ask you to be good enough to allow me space in your columns to express my sincere thanks to those who have returned me as their representative to the L.A.E. for No. 3 Area? I need hardly say that my services will always be at the disposal of the various associations and their members in the ten counties covered.

Yours very truly,

Exeter. Philip F. Rowsell.

Sir,—I desire to express my sincere thanks to those panel pharmacists who voted for me. Six more votes and I should have been elected. I regret that many (two-thirds) did not exercise their right of voting. If again nominated, I am hopeful of success as a practising panel pharmacist, knowing the requirements of the business.

Seaham Harbour. W. Forster.

Sir,—Will you kindly permit me to thank those panel pharmacists in the Metropolitan area whose votes returned me at the head of the poll, and to assure them that it will be my constant endeavour to look after and advance all our many interests, so far as I am able, in a sound and business-like way!

Yours faithfully,

78 Duke Street, London, W. A. R. Melhuish.

Sir,—I shall be glad if you will allow me through the columns of your paper to express my very best thanks to the electors of the North-Western area for the generous support accorded to me in the above election. Particularly would I like to thank the officers of the various associations in the North-Western area for their most welcome help. I am hopeful that in the strenuous time before us we shall be able to do something to make insurance dispensing more profitable than it has been in the past. J. H. Nidd.

Manchester.

Panel Dispensing.

Sir,—In your notes from Sheffield (*C. & D.*, August 23, p. 42) reference is made to the misunderstanding which exists as to what should be supplied on panel prescriptions. It is stated that everything ordered should be supplied, the responsibility being on the doctor, except as regards appliances. This is doubtless the official instruction, but many panel pharmacists who have suffered disallowances under the old Tariff cannot get rid of an uneasy feeling that they do not get paid, or at any rate do not get the full cost price in certain instances, especially when dispensing proprietary articles. It is, I believe, a rule that if a drug is ordered under a proprietary name the pricing bureau charge it out on the basis of the non-proprietary chemical of the same composition; but let us take a case where a doctor orders 2 lb. of Brown's Cod Liver Oil Emulsion, are we to empty out a sufficient number of 4*s.* 6*d.* bottles to make up the required quantity, and are we paid at Brown & Co.'s wholesale price or at the Tariff rate for emulsio ol. morrhuæ? Then, again, if a doctor orders 1 dozen of a proprietary pill or capsule, to supply which we have to obtain an original gross bottle, what are we to do with the remaining 11 dozen never required again, and, further, if, as in some cases, the manufacturers will only supply a stamped article, do the pricing bureau deduct the 6*d.* or 1*s.* for the stamp? Perhaps some of your readers who have a more intimate knowledge of the methods of the pricing bureaus can give us further information on these points, and also as to how we can ascertain the rate of payment allowed for any given script in case of doubt.

Yours faithfully,

Sans Sous. (1/45.)

Sir,—The answer of the Minister of Health to the question as to the amount of war bonus paid to doctors and chemists (*C. & D.*, August 23, p. 49) is interesting and amusing, especially the part which states that the chemists' bonus could not be separated from the general charges. Well, the act of grace amounted to 0.3*d.* per script, and the number of prescriptions being known and published it should be easy to calculate the amount. Possibly it looked so paltry beside the doctors 300,000*l.* for 1918 and 950,000*l.* for 1919 it was best not to mention it. Just think of it: nearly a million pounds sterling war bonus to doctors in one year, and for what?

Yours faithfully,

Denari Gratia.

Institute of Chemistry.

Sir,—I notice in your issue of August 23 a reference to the diplomas of the Institute of Chemistry. It would appear that in preparing this article you overlooked the fact that according to the latest regulations authorised by the Council for admission of students, associates, and fellows, the Intermediate examination has been superseded. Candidates for examination for the associateship are now required to undergo a course of study on the lines set out in that part of your article referring to the Intermediate examination, but the course has been extended to embrace four years at a recognised college (two years training with a Fellow of the Institute may be accepted in lieu of the fourth year's training at college). Furthermore, candidates who have obtained a degree (including chemistry) and have had one year's post-graduate training in chemistry, or two years' experience under a Fellow, are admitted to the Final examination. I would also add that copies of the regulations may be obtained (gratis) on application to the Registrar.

Yours faithfully,

G. Stanley W. Marlow.

Railway Delays.

Sir,—Your correspondent "Disgusted" (*C. & D.*, August 9, p. 70) invites discussion on railway delivery. It seems to me that in this case the fault is entirely with the despatch clerk, who should know that Barnet is not on the L.N.W. Railway, and that things like this tend to cause congestion in the railway depôts, as the labour entailed to check this error in despatch and of returning it to the senders could be avoided with a little care and a little knowledge of what stations the different railways serve. No doubt the carman offered to help "Disgusted" by taking it himself to the right company, and suggested "passenger train" as the quickest method of delivery, which showed his good sense.—Faithfully yours,

J. H. (247/73.)

Subscribers' Symposium.

Apprentice's Board and Lodging.

E. K. (247/62) asks what is a fair sum at the present time to charge against the business for the board and lodging of an apprentice.

Assistants' Notice to Leave.

Sir,—Your reply to "H. H." (*C. & D.*, August 2, p. 72) saves me writing to ask about assistants leaving without giving proper notice. May I ask what would constitute damages in such a case? It is impossible to get an assistant at a minute's notice; it means extra work for self and another, and probably slight loss through work not being done; but how can this be assessed? Any information on this point will be appreciated.—Yours truly, *R. N.* (242/7).

A Warning.

Chemico writes: Inspectors of Drug Store Proprietors' Associations are going round collecting evidence in different towns of chemists who leave unregistered persons in charge while the chemist is on holiday during the months of May to September. Up to now they have collected quite a number of cases of chemists who have left their shops in charge of unqualified assistants, in some cases only apprentices, during the Easter and other holidays. The idea is to collect evidence when the Association presents its Bill to Parliament for recognition. I think a warning to chemists to be very careful whom they leave in charge of their pharmacies should be given.—(209/70.)

Dispensing Difficulties and Notes.

A Mercury Mixture.

Sir,—The following prescription was handed to me some days ago:

Hydrarg. perchlor.	gr. ij.
Potass. iodid.	ʒij.
Sp. ammon. arom.	℥ij.
Aquam. ad	℥viij.

M. ft. mist. signe: ʒij. ex aq. ter in die.

I drew the prescriber's attention immediately to the following reactions, and pointed out that white precipitate would be produced:

$$HgCl_2+2NH_4OH=NH_2HgCl+NH_4Cl+2H_2O.$$
$$HgCl_2+2KI=HgI_2+2KCl.$$

The medical man replied that the mixture was not incompatible, only red iodide being formed. I should like your opinion on the matter.—Faithfully yours,

G. C. H. (227/24.)

[There is no need for hesitation in compounding this mixture. There is no white precipitate formed. The equations which you send are not representative of the reactions which occur. A double salt ($Hg_2K_2I_6$) is formed when potassium iodide and mercuric chloride are brought into contact in solution. If the two salts were combined in molecular proportions the aromatic spirit of ammonia might disturb the combination, but in the present mixture there is a large excess of potassium iodide which prevents the interference of the ammonia. As an illustration: if the mercuric chloride be dissolved in the water by itself and the equivalent amount of ammonium carbonate and hydrate, instead of the aromatic spirit which owing to its essential oil content obscures the reaction, be added, a distinct precipitate of mercuric ammonium chloride is produced; addition of a very small quantity of the potassium iodide dissolves it quickly and completely.]

Difficult Prescriptions.

Sir,—Would you kindly tell me how the following incompatible mixture and liniment should be compounded?

Yours truly,

H. R. H. (216/23.)

Magnes. sulph.	ʒiij.
Ac. gallic.	ʒij.
Tinct. opii	♏lxxx.
Ac. sulph. arom.	℥iss.
Aq. chlorof. ad	℥viij.

M. ft. mist.

Lin. pot. iod. c. sapone	ʒj.
Lin. capsici	ʒss.
Tinct. opii	ʒvj.
Lin. camph. ad	℥iij.

M. ft. lin.

[It is scarcely fair to apply the description "incompatible" to either the mixture or the liniment. In both cases workable if not elegant products can be produced. In the case of the mixture the gallic acid should be finely powdered and placed with the magnesium sulphate in a mortar, then rubbed down with the tincture of opium, aromatic sulphuric acid, and chloroform water previously mixed together. About half of the gallic acid remains undissolved, but being light and in fine powder it diffuses easily and uniformly, requiring no suspending agent. To compound the liniment rub down the liniment of potassium iodide with soap with a portion of the camphor liniment, add the liniment of capsicum and tincture of opium in the order mentioned, and make up the required measure with camphor liniment. It shakes up quite easily, and will "rub" all right.]

Legal Queries.

A. M. & Co. (3/13).—Unless you claim trade-mark rights in the name of the tonic, the wording of the label you send does not involve liability to medicine stamp-duty.

G. P. D. (224/4).—You should send particulars of the breaches of the Pharmacy Act to which you refer to the Pharmaceutical Society of Ireland, 67 Lower Mount Street, Dublin.

A. T. (249/67).—It would require a business licence to add the sale of ices or iced drinks to your business. "The opening on any premises of a line or department of any retail trade or business not previously carried on by the retailer" is one of the definitions of new businesses in the Defence of the Realm Act regulations.

C. F. (104/42).—The following are the replies to your inquiries: (1) Is it illegal to adulterate chicory? [There is no objection to mixing substances with chicory so long as such mixture is not sold under the name of chicory. This does not constitute adulteration, but if sold under the name chicory it would be adulteration and illegal.] (2) Is chicory a food or a drug within the meaning of the Acts? [Chicory is certainly a food within the meaning of the Sale of Food and Drugs Acts.] (3) If it be illegal to adulterate chicory, under what Act would the prosecution take place? [Prosecution would take place under Section 6 of the Food and Drugs Act, 1879. Theoretically a prosecution might be taken under the Merchandise Marks Act, but this is most unlikely.] (4) Is there any defined standard for chicory? [There are well-defined standards for chicory which can be found in most text-books on foods.]

Panopepton (241/13) employs a girl as a part-time dispenser. She now asks for a three weeks' holiday; is she entitled to wages during her absence? He also employs a girl as a bookkeeper who is paid wages weekly, but only works for "Panopepton" in the afternoons and, on the average, four evenings a week. Has this girl a right to a holiday on full pay, and is she entitled to more than a week's notice of dismissal? [As both girls are apparently in "Panopepton's" regular employ at a weekly wage, they are entitled to their wages, even during a holiday, until their contracts of service have been terminated by due notice. On the other hand, neither of the girls is entitled to insist upon a holiday being allowed to her. In our opinion the bookkeeper could not claim more than a week's notice of dismissal. The above remarks are made upon the assumption that the rights of the girls are not affected by special terms of employment or by the Shops Act.]

Senex (243/16) is tenant of a house and shop under a lease which will expire eighteen months hence. The lease confers upon "Senex" the option to buy the premises at a named price "within three months before the expiry of the lease." Is he entitled to exercise his option immediately and buy the house? or, alternatively, can he claim from his landlord a declaration that the property will be sold to him upon the expiration of his lease? [It is impossible to express a definite opinion upon "Senex's" position without seeing the whole of the clause which confers the option upon him. Unless, however, the words quoted are in any way qualified, it seems clear that his right to exercise his option to purchase does not arise until three months before the expiration of the lease. "Senex" would gain nothing by obtaining from his landlord the declaration referred to, since at any time during the three months preceding the termination of the lease he has the right to purchase the property at the price mentioned.]

W. W. (3/39) wants to know how the law stands in connection with the manufacture of home-made wine. [Home-made wines, if not manufactured for sale, may be made without restriction. But no one can make a British wine for sale unless he is the holder of an Excise licence for the purpose, and complies with the statutory regulations made by the Commissioners of Customs and Excise. The licence is called a sweetmaker's licence, costs five guineas, and expires on September 30 annually. The maker for sale is required by the regulations to make entry with the local officer of Customs and Excise of every place, room, and vessel used by him in the manufacture or storage of the wine, or the storage of the materials used in the manufacture. He must also keep a record in an official book, which is furnished to him by the officer, of the particulars of the quantity and description of the materials used and of the quantity and description of the wine made.]

J. M. J. (249/73) wishes to know if there are any restrictions on the sale of a solution of soft soap in methylated spirits made up and labelled as a dry shampoo for dogs. He wishes to place this on the market with an appropriate label. ["J. M. J." does not expressly say so, but we understand he wishes to make as well as sell this preparation. If he intends to make the article he should apply to the local surveyor or officer of Customs and Excise for a form of application to be allowed to receive methylated spirits for use in making the liquid soap. As to whether a licence is necessary for the sale of the preparation, this depends upon whether or not it is capable of being used for an internal medicine or consumed as a beverage, which it is obviously not in this particular case. If "J. M. J." describes in his application the use to which the preparation is to be put (that is, a dry shampoo for dogs), and gives the precise formula for it, the Customs and Excise authorities will tell him how he stands in this respect.]

Miscellaneous Inquiries.

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

J. H. (246/36).—Blueing Gun-barrels.—The two methods of doing this are by heat and by chemicals. In the former case the cleaned and polished steel is heated in wood-ashes to a temperature of from 500° to 600°. By the chemical method the following have been suggested: (1) Apply liq. antim. chlor. to the hot gun-barrel and rub the surface afterwards with a piece of green oak. (2) Immerse in the following solution:

Lead acetate	50 gr.
Sodium thiosulphate	50 gr.
Water	5 oz.

The solution is used hot, the article to be coloured being completely immersed. A variety of colours is obtained, and so soon as the pale blue stage is reached the steel is taken out of the liquid and washed.

H. R. (219/34).—Cough and Bronchitis Mixture, "P.F. 5":

Tinct. camph. co.	ʒxss.
Ammon. carb.	ʒxiv.
Vin. ipecac.	ʒxxviij.
Liq. scillæ pro syr.	ʒxiv.
Liq. tolut.	ʒxiv.
Sacch. ust.	ʒv.
Glycerin	℥xiv.
Inf. seneg. conc.	℥x
Aquam ad	Oiv. ℥iv.

Misce. ℥ss. t.d.s. ex. aq. cal.

B. & F. (245/8).—There have been no additions to the British Pharmacopœia since it was published in 1914. Some preparations were withdrawn owing to war conditions, but these have now all been restored.

M. B. (110/48).—(1) Capsicum Wool.—The following is a formula devised by Mr. A. W. Gerrard:

Liquid extract of capsicum ...	ʒij.
Absorbent cotton in thin sheets	ʒix.
Alcohol (90-per-cent.)	℥vij.

Mix the extract with the alcohol and pour the solution on to the cotton, under pressure, in such a manner that the cotton becomes evenly saturated. Dry the cotton and preserve it in well-closed cartons. A little erythrosin may be added to the solution if a deeper tint is required.

(2) Liquid Metal-polish.—See *C. & D.*, September 15, 1917, p. 52.

R. W. B. (122/52).—Varnish.—The kind of varnish which resists petrol or benzol has a similar composition to "dope," used for aeroplane fabric. The following is a formula:

Tetrachlorethane	44 c.c.
Carbon tetrachloride	12 c.c.
Acetone	24 c.c.
Alcohol	20 c.c.
Cellulose acetate	6.6 grams

Dissolve.

L. B. (91/8).—Ruener's Test.—This test for lactose, referred to in "Practical Methods of Urine Analysis," is not, in our opinion, satisfactory. It is claimed that by its application the presence of lactose in urine may be ascertained. Lactose has been found in the urine of nursing women by various authorities, and of course it becomes a matter of great importance that it should not be confounded with the glucose that is present in glycosuria, diabetes, etc. The test is applied as follows: About an inch of urine in a test-tube is treated with excess of sugar of lead and filtered. To the clear filtrate solution of ammonia is added, and, glucose or lactose being present, a further precipitate is obtained. This precipitate is white, but it is said that when it is gently warmed (not boiled) it gradually becomes rose-red in colour if it is due to glucose, but that it remains white if the precipitate is due to lactose. We have tried the test with urine samples and with artificially prepared samples containing lactose and glucose, and the defect appears to be in the colour reaction. The rose-red is difficult to detect, and might easily be overlooked. It is probably much safer to discriminate with phenyl hydrazine. The crystalline lactosazone consists of bundles of broader crystals than those produced by glucose, and they have a rather lower melting-point. Plates of the different crystalline forms may be seen in Halliburton's "Essentials of Physiology."

Jacobus (247/15).—Colouring Lantern-slides.—The sample you send has the colouring matter on a separate slide. This is managed by placing a cover glass coated with gelatine face outward upon the plain lantern-slide and applying colour where needed. When dry the coloured side of the gelatine cover and the face of the lantern-slide are placed together and bound in the usual way. The colours employed are aqueous solutions of aniline dyes.

C. C. C. (116/37).—(1) Lavender-water.—The following is one of many recipes given in "Pharmaceutical Formulas":

Foreign oil of lavender	ʒss.
Oil of cloves	ʒiss.
Oil of bergamot	ʒiss.
Essence of ambergris	ʒiij.
Essence of musk	ʒiij.
Tincture of Tonka bean	ʒj.
Tincture of orris	ʒj.
Triple rose-water	ʒv.
Spirit to	Oij.

Mix.

(2) Bay Rum:

Oil of bay	ʒj.
Oil of orange-peel	ʒss.
Oil of pimento	ʒss.
Rectified spirit	℥lxxvj.
Water to	℥cxxv.

Dissolve the oils in the spirit, gradually add the water, and after eight days filter.

W. W. & Co. (146/33).—(1) Nail-polish Paste:

Putty powder	½ oz.
Precipitated silica	1 oz.
Rose geranium oil	q.s.
Glycerin	q.s.

Make into a paste.

(2) The data you ask for regarding the colouring of liquid paraffin is not available in any published work, so far as we are aware.

W. A. W. (2/17).—Oxidising Copper.—The bronzed appearance on copper (known as oxidised copper) is obtained with either of the following liquids:

I.		II.	
Copper acetate	300 grains	Barium sulphide	2.5 grains
Copper sulphate	200 grains	Water	20 oz.
Water	50 oz.	Immerse the copper article in the solution, which acts slowly when cold.	
Boil the solution and immerse the copper article in the cold solution.			

W. B. P. (160/25).—Match-making.—The friction surface for use with safety matches is composed of amorphous phosphorus mixed with such ingredients as powdered pyrites, black antimony sulphide, and powdered glass, with glue as a binding material.

W. P. (3/17).—Preserving Peas.—The process outlined in the *C. & D.*, August 23, p. 72, is intended for fresh peas. The same effect could not be obtained with peas that have been dried.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Aug. 14, 1869.

Compulsory Vaccination.

The system of compulsory vaccination, which has been working with such excellent results in Scotland and Ireland since 1864, is now, in consequence of the Act passed in 1867, making its way in England with the general assent of public opinion, although not without some indications of discontent. It is a common infirmity of human nature to object to be compelled to do anything, even if the Act itself be one to which we would otherwise be favourably disposed, and of course we object still more strongly if it be one that we view with suspicion or dislike. No wise Legislature, therefore, would have recourse to compulsion for the attainment of an end that could in any other way be arrived at: and when the compulsion appears to invade parental rights, it may readily be conceded that a case of more than usual strength is required in order to justify it. Such a case, we believe, clearly existed with regard to compulsory vaccination; for although the extent to which the practice had been voluntarily adopted had reduced the deaths from smallpox in England to something like a tenth of what they had been before vaccination was known, the annual victims of that hideous disease still amounted to many thousands.

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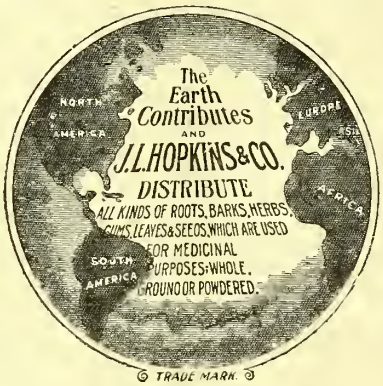

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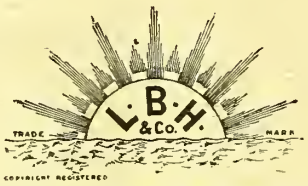

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SANTONINE

From Russia to the whole world.

Inquiries solicited also for

RUSSIAN CRUDE DRUGS

Wormseed (Semen Contra)	Aniseed	Gum Galbanum	Blood Albumine
Elderflowers (Flores Sambuci)	Ergot of Rye	,, Tragacanth	Anise Oil
Lycopodium	Liquorice Root	Henbane Leaves	Coriander Oil
	Calamus Root	Frangula Bark	Soap Root
	Boletus Cervinus	Cantharides	

STOCKS IN LONDON

We can offer from stock, afloat, and prompt shipment from New York :—

Acetanilid	Glucose	Paraformaldehyde
Aspirin	Heliotropine	Peppermint Oil
Aldehydes	Hexamine	Potash Chlorate
Acetic Anhydride	Hydrokinone	Potash Permang.
Bromides	Lithia Carb.	Prussiates
Beta-Naphthol	Hypophosphites	Resorcin
Carbolic Acid	Hypo. pea Xtals.	Saccharin
Coumarin	Mercurials	Salicylic Acid
Citric Acid	Methyl. Sal.	Soda Sal.
Farina	Milk Sugar	Salol
Formaldehyde	Phenacetine	Soda & Acid Benzoate
Guaiacol Carb.	Pepsin	Tartaric Acid
Dragon's Blood	Phenolphthalein	Terpineol
Glycerine	Pancreatin	Tannic Acid
Glycerophosphates	Paraldehyde	Vanillin

Also a full line of HEAVY CHEMICALS, ANILINE OIL & SALT, SODA, BICARBONATE, CAUSTIC ASH, SULPHIDE, SULPHITE, BLEACHING POWDER, BICHROMATES, ZINC DUST, &c. &c.

Obtain our quotations before ordering. (Phone 5763 HOLBORN.)

ASPIRIN TABLETS.

Every tablet guaranteed to contain gr. 5 PURE ASPIRIN, B.P., m.p. 135·5, as supplied by us on contract to the Allied Armies.

Packed for the Trade, in unlabelled bottles, as follows :
25's—**4/6** per dozen. 50's—**8/3** per dozen. 100's—**14/9** per dozen.
Bulk, **8/9** per 1000.

(Stock labels supplied if desired.)

ASPIRIN, B.P., superfine quality, **7/6** per lb.

SPECIAL QUOTATIONS FOR QUANTITIES. SEND FOR SAMPLES.

THE KEENE COMPANY

Manufacturing Chemists and American Merchants,

52 Gray's Inn Road, LONDON. 335 Broadway, NEW YORK.
11 Rue Condorcet, PARIS.

Contractors to His Majesty's War, India and Munition Departments. Contractors to The Allied Government's Military Hospitals. Members of American Chamber of Commerce in London. Members of London, British and Latin-American Chambers of Commerce.

The BRADFORD WOOL EXTRACTING Co. Ltd.

are ***ACTUAL MANUFACTURERS*** *of*

PHENACETIN THE BECOL BRAND SALICYLIC ACID

Telephone No. 2638 | PIT LANE MILLS, BRADFORD. | Teleg. "Production."

ASPIRIN TABLETS

ENGLISH ASPIRIN ONLY. EACH tablet contains 5 grs. B.P. Aspirin of the well-known make of Pierson, Morrell & Co., Ltd.

25's, 4/6 per doz.

In cartons, 3d. per doz. extra.

An Attractive and Elegant Display Box.

100's, 13/6 per doz.

50's, 7/6 per doz.

One or more of these boxes given free according to the requirements of each order.

1000, 8/6

SAMPLES FREE ON APPLICATION.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

REGISTERED.
With own name and address if required.

DESIGN.
A selection of 30 varieties of labels

H. & T. KIRBY & CO., Ltd., Newman House, Willesden Green, London, N.W. 2

CONTRACTORS TO H.M. WAR OFFICE.

ESTABLISHED 1871. Telegraphic Address: "Toothache Sheffield."

BRITISH
Aspirin Tablets

9/= per 1000

Each tablet contains 5 gr. B.P. Aspirin.
As supplied by us to the Military Hospitals.
Bottles—25s, 4/6; 50s, 8/-; 100s, 14/9.

BRITISH
Saccharin Tablets

·3 grain 550 in 1.

In packets or bottles of 100, 200 or 500, and in Bulk. Special quotations for quantities.

All drugs are tested, and tablets made in our own factories, and guaranteed by

G. CARR & CO. Ltd.

Manufacturing Chemists,
Wilkinson Lane - SHEFFIELD.

GUARANTEED
SACCHARIN TABLETS

Quantity.	½ grain.	⅓ grain.	¼ grain.
1-lb. ...	45/-	34/-	27/- per lb.
10,000	6/6	5/-	4/- per 1,000
100's, boxes	8/-	6/-	5/- per doz.

Cash with Order. *Window Bills Free.*

HYGIENIC TEATS FREE

With every order to the value of £5, we pack 6 dozen Transparent Hygienic Teats as Bonus, and a smart BUSINESS-PULLING WINDOW SHOW in addition to Bonus Teats.

WALTON, Chemist, BATLEY.

SACCHARIN TABLETS

Made from Monsanto Saccharin, each guaranteed to contain ½-gr. 330 in 1, 7,000 to the lb.

1 lb., 50/- 7 lb., @ 48/- 14 lb., @ 46/-

In envelopes each containing 100 @ 9/- per doz.

¼ gr., 1 lb. 27/-, 7 lb. 25/-, 14 lb. 23 -

Cash with Order. Carriage Paid.

R. GIBBINS & CO. Tablet Manufacturers
1 Birkbeck Road, Kingsland, LONDON, E. 8.

BEECHAM'S PILLS

WHOLESALE PRICES.

Beecham's Pills:

1s. 3d. size	**10s. 6d.**	per doz. net.
3s. 0d. „	**26s. 6d.**	„ „
5s. 0d {new size ... ... contains double the quantity of 3/- box.	**50s. 0d.**	„ „

Beecham's Cough Pills:

1s. 3d. size	**10s. 6d.**	„ „
3s. 0d. „	**26s. 6d.**	„ „

Orders: Minimum quantity £5 value—approximately. | ***Packages FREE. Carriage PAID.***

These Prices are the lowest no matter what quantity is ordered.

TERMS: CASH WITH ORDER.

Cheques to be made payable to **THOMAS BEECHAM**, and crossed "Parr's Bank, Ld., St. Helens."

TIDMAN'S SEA SALT

GOOD PROFITS. PROTECTED BY P.A.T.A.

Two Gross "**PENNY**" Packets sold for **30/-** show over 50% Profit on purchase price **21/-**, less 2½% delivered.

PRICE LIST.

	Advertised Price Per doz.	Minimum Retail. Per doz.	Wholesale Per gross.
"PENNY" PACKETS (12 in box)	**1/6**	**1/3**	**10/6**
Twopenny Packets (12 in box) ...	**2/-**	**2/-**	**19/-**
	Each.	Each.	Per doz.
Boxes, about 1½ lb.	**4d.**	**4d.**	**3/4**
„ „ 3½ „	**8d.**	**8d.**	**6/8**
„ „ 7 „	**1/2**	**1/2**	**11/6**
„ „ 14 „	**2/-**	**2/-**	**20/-**

Four 7-lb. Boxes CARRIAGE PAID for 4/-
Six 7-lb. Boxes CARRIAGE PAID at 11/6 per doz.
Assorted Orders to value of 10/-, CARRIAGE PAID, any of above sizes.

		Each.	Each.	Each.
No stock to hold	**Bags** of 28 lb.	**3/6**	**3/6**	**3/-**
	„ 56 „	**6/6**	**6/6**	**5/6**
	„ 1 cwt.	**12/-**	**12/-**	**10/-**

Carriage Paid.

2½% Discount for Cash on all orders of 20/- and upwards.

Packing Cases extra and returnable. Half value allowed if not returned.

TIDMAN & SON, Ltd., London, E. (Members of P.A.T.A.)

A PROFITABLE PROPOSITION.

"FLUZO" POWDERS

(Trade Mark, Registered).
For Headache, Toothache, Neuralgia, and Rheumatism.
Sold at **1/3** per box of 12 powders, or loose at **2d.** each; two for **3½d.**
Advertising matter with all orders, and Bonus for Window Shows.
Send for Price List and particulars.

A. S. PRICE & CO., LTD., Blackheath, Birmingham.

CHELTINE MILK & MALTED FOODS

No. 1, from birth to five months.
No. 2, from five months onwards.
No. 3, for Invalids, Dyspeptics, the aged, and those with enfeebled digestions.

Experience is proving, and medical men are testifying to the value of these perfect Foods. Terms and full particulars from

THE CHELTINE FOODS CO., CHELTENHAM.

EUCALYPTOL (CERNOL),

B.P. STANDARD.

PEPPERMINT-KETONE

AND

All Grades Eucalyptus Oils

Large Stocks always on hand.

GILLARD GORDON, LTD.

SYDNEY - AUSTRALIA.

Largest Actual Distillers of Eucalyptus Oil in Australia.

Cable ... ... "Gillard Gordon, Sydney."

THE GREAT REMEDY

widely advertised and selling freely

BAKER'S BACKACHE PELLETS

Mr. B. Ashcroft,
Chemist, Wigan,
writes :

April 10, 1919

"I have stocked Baker's Backache Pellets from the beginning, and have been pleased to do so, as your terms show a fair profit to the retailer."

TRADE TERMS :

1/3 size, 12/- per dozen

2/9 size, 26/9 per dozen

Have *always* been sold at face value.
P.A.T.A.

FROM ALL WHOLESALE HOUSES.

Showcards and Advertising Material from

BAKER'S MEDICINE CO., Ltd.

36 & 38 Whitefriars Street, London, E.C. 4

D.D.D. Prescription

FOR ALL SKIN & SCALP DISEASES

A well-advertised, high-grade preparation, enjoying a steadily increasing sale. On the P.A.T.A. protected list, giving the retailer a profit of about 25%.

TRADE PRICES.

			per doz.
D.D.D. Prescription	2/9 bottle,	M.R.P. Face Value, @	25/6
,, ,,	5/- ,,	,, ,, ,,	47/-

In two strengths—Ordinary and Strong.

			per doz.
D.D.D. Soap	1/- tab.	M.R.P. Face Value, @	8/3
,, Shaving Soap ...	1/6 stick	,, ,, ,,	13/6
,, Vanishing Cream	2/6 jar	,, ,, ,,	22/6
,, Shampoo Powders	2/6 box	,, ,, ,,	22/6

Carriage paid to any part of the United Kingdom.

Showcards, &c., Supplied Free.

D.D.D. Co., Ltd.

3, 5, 7 Fleet Lane, Ludgate Circus, London, E.C.4

KO-TAL-KO

IS ASKED FOR EVERY DAY BY YOUR CUSTOMERS

Stock "KO-TAL-KO" because

You cannot offer or sell a more effective hair restorer and maintainer—one more natural in its principles and certain in its effects.

Your regular customers will want it from you, and if they do not obtain it at your store will be tempted to go elsewhere.

You will never have your stock of "KO-TAL-KO" tying up your capital uselessly—on the other hand, your repeat orders quickly follow.

My trade terms will suit you, for they allow you to make your proper and deser ved profit, and you are working on sound business all the time.

NOTE TRADE TERMS (P.A.T.A.)—

5/- Size ... ... 48/- per dozen
12/6 ,, ... 112/6 ,,

J. HART BRITTAIN, Ltd.
(Dept. C.D. 1),
2 PERCY ST., LONDON, W.1

KO-TAL-KO

BISHOP'S PIPERAZINE CITRATE

A REMEDY OF ESTABLISHED AND DEFINITE VALUE

IN GOUT, LUMBAGO, SCIATICA, NEURITIS, GRAVEL, STONE, AND ALL MANIFESTATIONS OF THE URIC ACID DIATHESIS.

Prescribed by the British Medical Profession for 20 years.

The undoubted superiority of Bishop's Piperazine Citrate, and preparations containing it, is due to the stability of the salt, Piperazine Citrate, which, being non-volatile and non-hygroscopic, undergoes no change upon exposure to heat or moisture, and thus lends itself to all manufacturing and dispensing processes.

Piperazine base, on the contrary, is so volatile and hygroscopic that it cannot be manufactured or dispensed with any degree of accuracy. Hence the unreliability of all Piperazine preparations that are not made with Bishop's Piperazine Citrate.

PIPERAZINE CITRATE IS MADE ONLY BY ALFRED BISHOP, LTD.

Bishop's Piperazine Citrate is the most powerful uric acid solvent known. It neutralises twelve times as much uric acid as any other alkaline solvent, and the resulting Piperazine urate is eight times as soluble as any other urate.

Bishop's Piperazine Citrate is non-irritant and non-toxic. It does not derange the digestive functions and is easily borne by even sensitive stomachs.

Bishop's Piperazine Citrate is supplied in crystalline powder for dispensing, and also in the Granular Effervescent form and Varalettes. The value and reliability of these preparations have been established by abundant clinical experience.

WE CAN, HOWEVER, SUPPLY PIPERAZINE BASE IN LARGE OR SMALL QUANTITIES, FOR MANUFACTURERS WHOSE PROCESSES CALL FOR IT.

Prices and Particulars on application to—

ALFRED BISHOP, LTD. MANUFACTURING CHEMISTS,

48 SPELMAN STREET, LONDON, E.1.

Never be without

ZI-ZI OINTMENT

On the P.A.T.A.

The genuine remedy for
ECZEMA, CUTS, BRUISES, SORES, BURNS, PILES, PIMPLES, BAD LEGS, SORES on HEAD, CHAPPED HANDS and ALL SKIN TROUBLES.

Liberal Terms to the Trade.

Apply to your Wholesaler or to

The "ZI-ZI" CO., Newmarket.

Advertising matter free on request.

TO PLEASE YOUR CUSTOMERS, STOCK

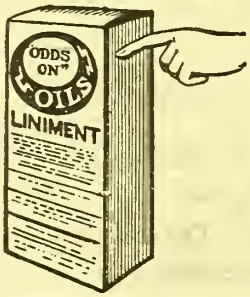
Overton's Foot-Balm

A REAL Foot Remedy with a big Profit.

R. H. ALLEN & CO.

Manufacturing Chemists,
122/124 Wells Road, Sydenham,
LONDON, S.E. 26.

RAPIDLY INCREASING DEMAND FOR



"ODDS ON" OILS

Liniment for RHEUMATISM, SCIATICA, SPRAINS, &c.

WIDELY ADVERTISED. Retail Prices: 1/3, 3/- & 8/- bottles

Obtainable from all Distributing Chemists or direct.

The "ODDS ON" SPECIFICS CO., LD., 36-37 Cock Lane, LONDON, E.C.

ÉTABLISSEMENTS CHATELAIN,

2 & 2 bis RUE DE VALENCIENNES, PARIS.

Sole Manufacturers of

JUBOL

RE-EDUCATION OF THE INTESTINE.

Constipation, Enteritis, Hæmorrhoids, Indigestion, Skin Blemishes, &c.

Price 5/- per box.

GLOBÉOL

POWERFUL BLOOD TONIC.

Anæmia, Nervous Exhaustion, General Debility, Tuberculosis Convalescence, etc.

Price 5/- per bottle.

PAGÉOL

POWERFUL URINARY ANTISEPTIC.

Cystitis, Prostatitis, Catarrh of the Bladder, Renal Tuberculosis, etc. etc.

Price 5/- and 11/- per box.

JUBOLITOIRES

SCIENTIFIC SUPPOSITORIES

For Hæmorrhoids, Rectitis, Anal Fistula, etc. Anti-hæmorrhagic, Sedative, De-congesting.

Price 5/- per box.

URODONAL

POWERFUL URIC ACID SOLVENT.

Rheumatism, Gout, Arterio-sclerosis, Stones, Gravel, Sciatica, Neuralgia and all Uric Acid disorders.

Price 5/- and 12/- per bottle.

VAMIANINE

New Scientific Preparation for Chronic Skin Affections, Psoriasis, Eczema, Acne, etc.

Price 11/- per bottle.

SINUBÉRASE

SCIENTIFIC PREPARATION OF LACTIC FERMENTS.

Indicated in Intestinal Disorders, Dysentery, Diarrhœa, Dyspepsia, Enteritis, Typhoid, Skin Eruptions, etc., etc.

Price 5/- per bottle.

FANDORINE

Metrorrhagia, Dysmenorrhœa and Lactation, Pains, etc. etc.

Price 5/- and 11/- per bottle.

GYRALDOSE.

Antiseptic for local Gynæcological use.

Price 4/- per box (powder)
" 5/- " (tablets)

FILUDINE

SPECIFIC FOR THE LIVER.

Malaria, Diabetes, Cirrhosis, Sluggish Liver, Tuberculosis, etc.

Price 11/- per bottle.

Heppells

BRITISH AND COLONIAL AGENTS—

Pharmacists & Foreign Chemists, 164 Piccadilly, LONDON, W. 1.

Telegrams: "URODONAL LONDON." Telephone: Regent 192.

AUSTRALIAN AGENT: Mr. BASIL KING, Malcolm Buildings, Sydney, N.S.W.

INDIA (SUB-AGENTS): G. ATHERTON & CO., 8 Clive Street, Calcutta.

Stocked by all Wholesalers. *Now being largely advertised.*

46% Profit

A good return of profit on a widely advertised article is assured to all Chemists who stock

Chocoloids

The Cure for Constipation

Chocoloids are supplied to the retailer in two sizes—at 12/- and 24/- per dozen. With each dozen small size is given FREE two small tins, and with each half-dozen large size one large tin. Retail price 1/3 and 2/6 respectively.

Chocoloids Advertising is National.

Daily and weekly newspapers, weekly and monthly periodicals all carry Chocoloids advertising to the extent of over ten million copies per month. Chocoloids are already sold when you exhibit our showcard.

Send an order to-day. Show material supplied free.

The Chocoloid Co.,
Stirchley Laboratories - Birmingham.

A1

"Ichthyol"

The German product equalled, if not excelled, by "ITTIOLO," manufactured from the ichthyolitic shales of GIFFONI VALLEPIANA, has been brought to the notice of all medical men in this Country Italy, France and America.

Manufactured by the
SOCIETA INDUSTRIE CHIMICHE "ITTIOLO"
Via Medina 24, Naples, Italy.

Analyses, pamphlets and prices on application to Sole Agent in the U.K.:

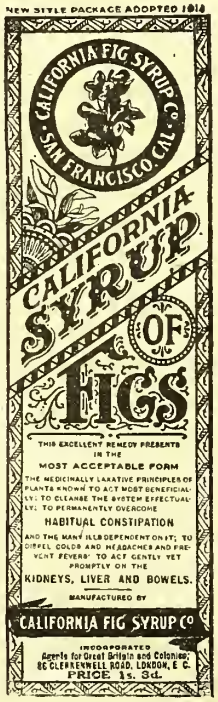
PAUL BEHRENDS
(of HAVRE)
4 ADRIA ROAD, DIDSBURY, MANCHESTER.

WE are pleased to announce that ample stocks of CALIFORNIA SYRUP OF FIGS are now available, and we are prepared to execute orders promptly for this well-known Family Laxative in the two sizes 1/3 and 2/-.

Replenish your Stock of

CALIFORNIA SYRUP OF FIGS

The Original and Genuine.



It is very gratifying to make this announcement after the prolonged shortage which has unavoidably caused inconvenience to our customers, and we extend to them our full appreciation of their indulgence in the circumstances.

Large forceful advertisements of CALIFORNIA SYRUP OF FIGS will shortly appear in all the principal daily and weekly newspapers throughout Great Britain and Ireland. We recommend chemists to anticipate their requirements well in advance.

As a further guarantee of the genuine remedy sold under the brand CALIFORNIA SYRUP OF FIGS the registered trade mark. "CALIFIG" is imprinted on each package, and embossed on the bottle itself.

FASSETT & JOHNSON, Ltd.,

86 Clerkenwell Road, London, E.C. 1.

DO THEY KNOW

THAT YOU STOCK "QUINPHOS" Regd.

?

Here is a list of places from which we have had direct orders recently. We would much rather these orders were filled locally

Alfreton
Aberdeen
Aylesbury
Aberystwyth
Anglesey
Annan, Dumfriesshire

Bangor
Bournemouth
Bath
Barrow-in-Furness
Bathgate (N.B.)
Bakewell
Brighton
Bettwsycoed
Barmouth
Blackpool
Bristol
Bridlington
Birmingham
Buxton
Bury St. Edmunds
Barnsley
Blackwater, Hants
Bishops Gate, Salop

Chesterfield
Colwyn Bay
Conisborough

Corbridge-on-Tyne
Chapletown
Cambridge
Clevedon
Cardiff
Coventry
Carlisle
Cambridge

Dublin
Dewsbury
Derby
Dudley
Durham
Darlington
Dolgelly
Dover
Doncaster

Eye (Suffolk)
Edinburgh
Exeter

Falmouth
Filey

Gateshead-on-Tyne
Gosport
Gosforth
Gainsborough
Grimsby

Glasgow
Grange-over-Sands
Goole
Gorleston-on-Sea

High Wycombe
Hathersage
Harrogate
Hornsea
Hornchurch
Horncastle
Hastings

Ipswich

Kenham-on-Tyn

Lancaster
Leicester
Lincoln
Leamington
LONDON (all parts)
Llandudno
Lowestoft
Loughborough
Leek

Mansfield
Matlock
Mirfield
Marlborough

Middlesex
Montgomery

Northampton
Newark
Newcastle
Norwich
Normanton
Nostell (Wakefield)
Nottingham
New Quay
Nortballerton

Oxford
Ottley

Portsmouth
Portrush
Pontefract
Penzance
Peterborough
Plymouth
Penistone
Preston

Ripon
Retford
Reading
Rotherham
Rhyl

Southsea
Sheringham
Scarborough
North Shields
South Shields
Shrewsbury
Skegness
Skipton
St. Leonards
Sunderland
Sutton-on-Sea
Swinton
Shap
Selby

Tyne Dock
Thirsk
Tunbridge Wells

Wakefield
Walsall
Warrington
Weston-Super-Mare
Whitby
Wisbech
Workington
Wolverhampton

York
Yarmouth

BONUS FOR WINDOW DISPLAY

For a £3 order of "QUINPHOS," assorted sizes, liquid or tablets or assorted, there is a bonus of 9×1/3 size, with high-class Cut-out and Showcards for placing in the Window.

For a £5 order of "QUINPHOS," assorted sizes, liquid or tablets or assorted, there is a bonus of 15×1/3 size, with high-class Cut-out and Showcards for Window Display.

A SPECIAL DISCOUNT OF 5% IS GIVEN FOR CASH WITHIN ONE MONTH.

THIS MEANS THAT

MIN. RETAIL

On the 1/3 size you get 5¼d. profit
,, 2/11 ,, ,, ,, 1/0½d. ,,
(equal to 3×1/3 size)
,, 5/- ,, ,, ,, 1/9½d. ,,
(equal to 6×1/3 or 2×2/11)

THE WINDOW DISPLAY TAKES UP VERY LITTLE ROOM.

SOLE MAKERS—

THOMPSON & CAPPER, Ltd., Manesty Buildings, COLLEGE LANE, **LIVERPOOL.**

NOW ON THE P.A.T.A. LIST.

EASELIB for PILES

We have completed arrangements for a

GREAT ADVERTISING CAMPAIGN

to commence immediately. DO YOU HOLD STOCK of the

NEW COMPRESSED TABLET FORM

You can obtain supplies from your usual Wholesaler.

1/3 size	....	12/- per dozen
3/- ,,	....	28/9 ,,
5/- ,,	....	48/- ,,

EASELIB IS PROTECTED AT FACE VALUE

If you will display one of our Showcards, and send cheque with order, we will make you a payment of 1 BOX FREE with each dozen ordered. Upon these terms your profit will be 4¼d. on the 1/3 size, 10¼d. on the 3/- size, and 1/5 on the 5/- size.

If you hold any stock of EASELIB bearing the name of Woolford & Co., Leeds, please return it to us at once. We pay postage both ways.

The EASELIB REMEDIES COMPANY, 2 Upper Road, BATLEY, YORKS

We Develop Films and post back Next Day
,, & Print ,, ,, ,, in Two Days

Plates, Flat or Roll Films, developed, printed, enlarged, retouched, etc. We lay our works out to supply Pharmacists with good work at reasonable prices, with quick dispatch. Price List on application. Monthly accounts without fuss.

ARTHUR J. C. LEWIS, The Chemists' Photographic Printers, NEW BARNET

BOTTLES CANNONS, BRILLS, LIMES, PERFUMES, BAY RUMS, KALIS, CARBOYS

WHOLESALE ONLY—PROMPT DELIVERY.

E. DUNCAN DORING, 7 King St., Cheapside, E.C. 2

Telegrams: "Doringlaso, Phone, London." Telephone: City 4000.

BARDSLEY'S No. 96 SACK TRUCK

We are more than pleased at the number of testimonials we are receiving every week as to the good value these trucks are.

Carriage Paid 42/6 Cash with order

BARDSLEY'S, Truck Specialists, FRINTON-ON-SEA.

Swiss Bank Corporation

Basle, Zurich, St. Gall, Geneva, Lausanne, La Chaux-de-Fonds, Bienne, Chiasso, Herisau, Le Locle, Nyon.

London Office - - - 43 LOTHBURY, E.C.2.
West End Branch: 11c Regent St., Waterloo Place, S.W.1.

Capital Authorised & Fully Paid-up £4,000,000
Reserves - - - - - £1,240,000

Banking and Exchange Business of every description transacted. The Bank will gladly furnish the Chemical and Drug trades with all available information regarding Trade and Industry in Foreign Countries.

SAPONINE (SOLUBLE), MANUFACTURED BY

C. W. FIELD, LTD., Cambrian Mills, LIVERPOOL.

Special Terms to Wholesalers and large Consumers.

P.A.T.A. Revised Prices in effect SEPTEMBER 1, 1919.

Antiphlogistine

TRADE MARK

Size.	M.R.P.	M.W.P.	Size.	M.R.P.	M.W.P.
7 oz.	2/6	22/6	34½ oz.	8/6	76/6
17½ ,,	5/-	45/-	5 lbs.	17/6	157/6

Prices for IRELAND, CHANNEL ISLANDS, and ISLE OF MAN.

Size.	M.R.P.	M.W.P.	Size.	M.R.P.	M.W.P.
7 oz.	2/-	16/6	34½ oz.	6/6	52/6
17½ ,,	4/-	33/-	5 lbs.	13/6	109/6

A Discount of 5% allowed off M.W.P. on orders of £2, cash with order.

CARRIAGE PAID ON ALL ORDERS.

THE DENVER CHEMICAL MFG. CO.,
41 ST. ANN'S ROAD, LONDON, E. 3.

NOSTROLINE

TRADE MARK REG.

N.379.

NASAL SPECIFIC

Look to your Stock!

Place orders without delay direct or through Wholesale.

Protected at face value, 1/3
Price: 1 doz. 11/9, 3 doz. 33/9, 1 gross 135/-

Carriage Paid. Terms: Cash Net.

"NOSTROLINE"
Prevents and Cures
COLD IN THE HEAD, NASAL CATARRH, HAY FEVER ETC.
Protects against Infection.

OVERSEAS CORRESPONDENCE INVITED

HAROLD E. MATTHEWS & Co.,
CLIFTON, BRISTOL.

LIQUID BARKOLA COMPOUND

Wholesale 26/- per doz., less 10 & 5%. Retail 2/9 each.

Each bottle (1 oz.) carries instructions to the chemist to make up to the following Standard Formula—

Liq. Barkola Comp., 1 oz.; Tincture of Gentian, 1 oz.; Syrup of Rhubarb, 1 oz.; Syrup of Ginger, 5 oz.

Chemists charge according to their own scale for dispensing

THE BARKOLA CO., LTD.,
42 Great Dover St., LONDON, S.E. 1.
Proprietors of Barkola Alvexo, Barkola Balm, &c. &c.

MANUFACTURERS OF

TOILET REQUISITES, SURGICAL GOODS, DRUGS, CHEMICALS, PATENTS AND PROPRIETARY MEDICINES

can surely reap good profits, as we can push their products successfully, and thus guarantee a good sale in the Indian Market, being in the line for ten years.
Offers for sole Agencies and Representation are therefore cordially invited, with best terms and proposals, directly to the address below.

Established 1910. *Telegrams: "ONWARD."*

The International Commercial Agencies
(To be Incorporated)
147 Abdul Rehman Street, BOMBAY 3 (India)

P.A.T.A. NOTICE.

113 Temple Chambers, E.C. 4.

August 30, 1919.

The following revised prices are now in force:

Advertised Price.		Minimum Retail Price.	Minimum Wholesale Price.
2/6	**Antiphlogistine** (7 oz.) ...	2/6	22/6 doz.
5/-	,, (17½ oz.) ...	5/-	45/- ,,
8/6	,, (34½ oz.) ...	8/6	76/6 ,,
17/6	,, (5 lbs.) ...	17/6	157/6 ,,
	Prices for Ireland, C.I. and I.O.M.		
2/-	,, (uns'amped) (7 oz.) ...	2/-	16/6 ,,
4/-	,, ,, (17½ oz.)...	4/-	33/- ,,
6/6	,, ,, (31½ oz.)...	6/6	52/6 ,,
13/6	,, ,, (5 lbs.) ...	13/6	109/6 ,,
	Condy's Fluid—		
1/6	Red or green, 8 oz. ...	1/6	14/4 ,,
3/-	,, ,, 20 oz. ...	3/-	28/8 ,,
	Erasmic Peerless and Elite Soaps—		
7d. tab.		7d. tab.	68/- gross under ⅓ ,, 67/- gross
1/9 box		1/9 box	under 1 ,, 66/- gross
3/- box La Reine d'Egypte Soap		3/- box	96/- gross
2/- Eau de Cologne, 1 oz. ...		2/-	18/- doz.
2/6 Perfume (Sprinkler bot.) ...		2/6	22/- ,,
			Less 5% cash at 1 month.
	Cibbs, D. & W., Specialities—		
7d. tab. Cold Cream Toilet Soap		7d. tab.	5/3 doz. tabs.
1/9 box ,, ,,		1/9 box	16/3 doz. bxs.
7d. tab. Carbotar Soap ...		7d. tab.	4/9 doz. tabs.
1/9 box ,, ,, ...		1/9 box	14/9 doz. bxs.
7½d. tab. Olivene Soap ...		7½d. tab.	5/- doz. tabs.
			Less 5% discount on assorted orders value 30/-
7½d.	**Harley's** Rodine Rat Poison	7½d.	5/- doz.
1/3	,, ,, ,,	1/3	10/- ,,
2/6	,, ,, ,,	2/6	20/- ,,
5/-	,, ,, ,,	5/-	40/- ,,
1/6	**Oatine** Cream, Jars ...	1/6	14/5 ,,
3/-	,, ,, ,, ...	3/-	28/10 ,,
4/6	**Roche's** Embrocation ...	4/6	43/- ,,
	Sanitas Co., Ltd., Preparations		
1/-	Fluid	1/-	9/6 doz.
1/6	,, ...	1/6	14/6 ,,
4/6	,, (½-gallon jars) ...	4/6	3/9 each
7/6	,, (1-gallon jars) ...	7/6	6/3 ,,
1/6	Toilet Fluid	1/6	14/6 doz.
1/-	Powder	1/-	9/6 ,,
1/6	,, ...	1/6	14/6 ,,
1/6	,, Crude	1/6	14/6 ,,
1/6	Formigators	1/6	14/6 ,,
1/6	Bathol	1/6	14/6 ,,
1/-	Bath Salt, ½-lb. tins ...	1/-	9/6 ,,
1/6	,, 1-lb. tins ...	1/6	14/6 ,,
1/6	Toilet Paper	1/6	14/6 ,,
1/-	Tooth Powder	1/-	9/6 ,,
1/6	Zanol Dentifrice, Liquid and Paste	1/6	14/6 ,,
1/6	Bactox Fluid	1/6	14/6 ,,
1/6	Okol Fluid	1/6	14/6 ,,
1/-	Shaving Sticks	1/-	9/6 ,,

Orders under £3 value strictly nett.

Orders over £3 value 2½% disc. for cash on approved accounts if paid within 28 days.

Orders over £10 value 2½% disc. and 2½% for cash in 28 days.

1/1½	**Steedman's** Soothing Powders	1/1	10/6 ,,
2/9	,, ,, ...	2/9	24/9 ,,

Single Powders 1½d. each.

GOOD! IT'S MASON'S

The Drink for the Masses

Millions of glasses used daily by workers all over the Empire

Please allow us to Sample and Quote—

Citrate Magnesia
Health Salt
Salines
Liver Salt
Blood Salt
Sulph. & Sarsap. Salt
Lemonade Crystals, &c.

NEWBALL & MASON
NOTTINGHAM

GENUINE BEECHWOOD

CREOSOTE

(The well-known Swedish make.) B.P.
Stock in London.

PETRI BROTHERS,
39 LIME STREET - - LONDON, E.C. 3.

Calcium Carbide

DANISH EXPORT FIRM offers 1,000 tons Calcium Carbide, 50/80 mm., for prompt delivery from Copenhagen.

Best offers to 223/65, Office of this Paper

Nujol

TRADE MARK

For Constipation

In Nujol you offer to your customer a product unexcelled in quality and highly effective in results, and you are handling an article at a margin of profit which compares favourably with your profit on bulk oil.

Nujol *exceeds* the requirements of the British and United States Pharmacopœias.

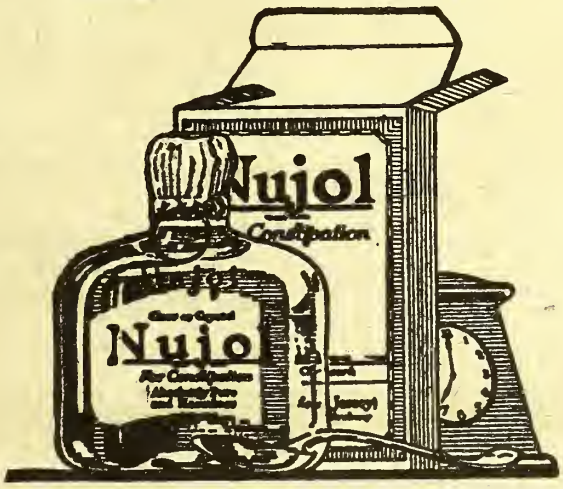
The manufacturers of Nujol, with their world-wide holdings, are in a position to obtain the best crudes from any section of the world. And nothing less than the best is used in preparing Nujol. This accounts for the high trade reputation which the product has earned in North and South America, Canada and Australia.

Nujol is frankly endorsed and whole-heartedly prescribed by the leaders of the medical profession in the Western World and Australasia.

It is now being extensively advertised in medical journals of the United Kingdom.

It is put up at the Nujol Laboratories in sealed bottles only, bearing the Nujol trade mark, in nine, sixteen, and twenty-ounce sizes, of a particularly attractive and convenient shape.

Nujol Laboratories
STANDARD OIL CO. (NEW JERSEY)
New York U.S.A.



Write for prices and particulars to Sole Distributors for the United Kingdom, Anglo-American Oil Co., Ltd., 36 Queen Anne's Gate, Westminster, London, S.W.

The Holoyd Page

SACCHARINE TABLETS AND TEA SWEETENERS

DON'T forget that we can still give you immediate delivery of these two lines, and sell them to you at prices which will enable you to successfully meet all competition.

PRICES TO DRUGGISTS ARE AS FOLLOWS:

SACCHARINE TABLETS.

Full strength, 0·3 gr., 550 in 1 gr.
100's per doz. 8/-
In Bulk ... £2 5 0 per lb.

TEA SWEETENERS

or half strength Saccharine Tablets, 0·15 gr., 550 in 1 gr.

25's	...	...	16/- per gross
50's	...	...	28/- ,,
100 s	...	...	48/- ,,
In bulk	...	...	22/6 per lb.

Attractive Posters and Showcards supplied.

H. O. LLOYD,
The Holoyd Laboratories,
Green Lane, Small Heath,
BIRMINGHAM.

SOMETHING NEW FOR THE HOLIDAY SEASON!

Sanatogen Chocolate

Genuine Sanatogen skilfully mixed with Pascall's Chocolate
will "catch on" quickly and pay you well.

The War has made chocolate more popular than ever; its nourishing and invigorating properties are now widely known.

Naturally, those properties are much increased by the addition of Sanatogen, and unlike most medicated chocolates it is neither "muddy" nor unpalatable.

In its dainty artistic wrapper, at 1/6 per packet, Sanatogen Chocolate should meet with a brisk and ready sale. Moreover, it will be widely advertised, not only to the public but also to the medical profession. It is, of course, particularly valuable for growing children, who need relatively more sugar than adults; for invalids whose palate requires tempting; and for those who dislike eating fat or have difficulty in digesting starchy foods.

ORDER PROMPTLY, AS THE STOCK AT PRESENT IS LIMITED

Trade Terms: 15/- per dozen.
If part of £5 mixed order 10 per cent. can be deducted.

GENATOSAN, LTD. *(Makers of Sanatogen, Formamint, Genasprin, etc.)*
12 Chenies Street, LONDON, W.C.1.
Chairman: The VISCOUNTESS RHONDDA.

LIQ. SANTAL FLAV. c. BUCHU et CUBEBA

(Hewlett's)

Packed for dispensing only, in 10, 22, 40 & 90 oz. bottles.

"Experience has shown this preparation to possess the same efficacy as Santal Oil itself. It mixes clear with water, and has a taste by no means disagreeable."

The Practitioner.

VIROPHOS

Of proved utility in Nervous Diseases, and a powerful Restorative for the Digestive Organs and Nervous System.

A Valuable Tonic Food for Children.

"It is of high nutritive value enhanced by the presence of assimilable phosphates."—*The Lancet.*

WHOLESALE PRICES.

No. 1.	1½ oz. Tin ..	9/-	per doz.
" 2.	3¼ " " ...	14/6	"
" 3.	6½ " " ...	24/-	"
" 4.	12 " " ...	42/-	"

MIST. PEPSINÆ CO. c. BISMUTHO

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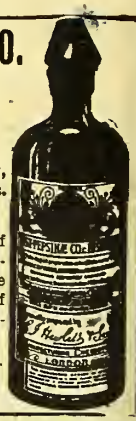
Packed for dispensing only, in 10, 22, 40 and 90 oz. bottles.

"Obviously likely to be of much advantage in the frequent cases of irritative dyspepsia, with atony of gastric or intestinal muscular layers."

British Medical Journal.



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THE MOST ECONOMICAL INFANTS' FOOD.

TRADE MARK

"FRAME FOOD"

ON P.A.T.A. LIST. *SHOWCARDS FREE.*

FRAME FOOD CO., Standen Road, Southfields, London.

EXTRACT OF MEAT

(IN BULK).

DIRECT IMPORTER

FROM

AUSTRALIA, ARGENTINA, BRAZIL, URUGUAY, &c.

IN VARIOUS QUALITIES.

I invite your Inquiries.

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PRODUCE IMPORTER,

19 EASTCHEAP, LONDON, E.C. 3.

Recommend it for Convalescence

Doctors prescribe Turtle Soup in all cases where the patient cannot retain any other nutriment.

FREEMANS

REAL TURTLE EXTRACT

is the real meat of selected West Indian Turtles, compressed into handy tablets; it provides all the delicacy and nourishment of soup made from fresh killed turtles, and is quickly prepared as it requires nothing but boiling water.

For hospitals, nursing and convalescent homes it can be strongly recommended as the best, safest and handiest invigorator obtainable.

The trade terms are particularly favourable, and particulars can be obtained by writing to

The Watford Mfg. Co. Ltd.
Delectaland, WATFORD

Freemans FOOD PRODUCTS Watford S.A.A.

"GLACIALINE"

The Original and Most Effective Food Preservative

The only Food Preservative that has ever been publicly awarded Gold and Silver Medals and Certificates of Merit for Purity and Harmlessness.

TRADE MARK

Full directions for use enclosed in every package.
Packed in 6d. and 2/- Packets and 2/3 Canisters.
FAVOURABLE TRADE TERMS UPON APPLICATION TO THE

Sole Proprietors and Manufacturers:

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Established 134 Years.

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The OLDEST and LARGEST Firm of

ANNATTO, RENNET

and BUTTER COLOUR Manufacturers in GREAT BRITAIN

GERMANS have never had any interest whatever in R. J. F. & B.'s firm, which has been carried on by British partners and with British capital since it was established in 1785. Others who claim to be the only makers of Rennet in England CANNOT SAY THIS.

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WHOLESALE.	RETAIL.
24/- per gallon tin	29/- per gallon tin
12/6 ,, ½ ,,	15/- ,, ½ ,, ,,
6/3 per quart jar	7/6 per quart jar
3/- ,, pint ,,	3/9 ,, pint ,,
1/7 ,, ½ ,,	2/- ,, ½ ,, ,,

VIKING ANNATTO

WHOLESALE.	RETAIL.
12/6 per gallon jar	15/6 per gallon jar
6/6 ,, ½ ,,	8/- ,, ½ ,, ,,
3/6 ,, quart ,,	4/3 per quart jar
2/2 ,, pint ,,	2/6 ,, pint jar

These prices include containers and carriage pd.

VIKING RENNET and ANNATTO must not be resold to Cheesemakers at more or less than the retail prices stated above.
VIKING ESSENCE of RENNET JUNKET TABLETS, and JUNKET POWDER. *Prices on Application.*

Sole Manufacturers—
THE VIKING RENNET CO., LTD., 19 Clapton Square, London, E. 5.

LIQUORICE JUICE "KALOS" BRAND
IS THE SUPREME QUALITY
WITHOUT EXAGGERATED PRICE.

Osmos

The Great British Aperient Water

Osmos is the only water known to be identical in composition and osmotic properties with the alien water Hunyadi Janos.

Osmos is highly recommended by the Medical Profession.
Osmos is steadily advertised in the Press.
Osmos is on the P.A.T.A. list and yields a fair profit.

Terms on Application. Osmos, Crown Wharf, Hayes, Middlesex

P.A.T.A. **CURACEA** REGD.

LIQUID NERVE TONIC

11/- per doz.—SELLS AT 1/3 ea.
24/- " " " " 2/9 "
45/- " " " " 5/- "

Orders Executed per Return.

2½% discount on 45/- parcels, cash with order. Attractive showcards and counter bills.

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PURE ORANGE WINE

A. MILLAR & CO., LTD., DUBLIN

(VINUM AURANTII B.P.) Prepared in strict accordance with the Formula of the British Pharmacopœia. (Wholesale only)

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FLOUR, BREAD, BISCUITS, FOOD, RUSKS, COCOA, Etc. Also Foods for Anæmic, Dyspeptic, Invalid and Aged People and Infants. Highly recommended by Medical Profession.

INFANTS' FOODS packed under Chemists' "OWN NAMES."

Terms and all particulars on request.

ALL CHEMISTS SHOULD STOCK **ABDINE**

THE GOLD MEDAL FRUIT DRINK.

Quick Seller. Big Profits. Over 40 Years' Reputation.

"ABDINE" is the most popular Health Drink. Superior to all Mineral Waters. Sold in Packets, 1½d. each; Boxes of 13 packets, 1/6.

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Do You Sell Sister Lauras Food?

The question is often asked nowadays.

The Chemist who does not stock Sister Lauras Food is missing a good line.

Sister Lauras Food is achieving great success as a preparation for weakly babes and for invalids and the aged.

It makes milk digestible and is invaluable in cases of malnutrition.

It is a thoroughly reliable line and one that brings a handsome return.

Price 1/- & 2/6 per tin. *Samples and advertising matter free on application*

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ELDERFLOWERS

Rubbed for Ointment.

DELIVERY IN GOOD CONDITION GUARANTEED.

Also Pickled and Dried.

Orders for these should be placed *at once.*

FLEMONS & SONS,

HERB MERCHANTS, DUNSTABLE.

TO CREATE TRADE

stock lines that recommend themselves.

Quencholeen requires no sugar.
Quencholeen will bring you customers and add to your reputation.
Quencholeen pleases everybody and retails at 1½d. per pkt., or in cartons of 13 pks. for 1/6.

Trade Terms.

£13/- per doz. cartons, 5 doz. lots. 12/- per doz. net, together with showcards and window bills complete, cash with order. Carriage Paid.

Selling Agents for England and Ireland—
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"Prana"

SPARKLETS

"B" & "C" Bulbs can now be sent promptly on receipt of order.

"C" Bulbs may be used instead of "D" Bulbs without any alteration to the Syphon.

Prices.	Trade doz. boxes	Retail (P.A T.A.) each
"C" Bulbs (box of 12) ...	33/- ...	3 6
"B" Bulbs " " ...	22/- ...	2/4

Aerators, Ltd., Edmonton, N. 18

LOFTHOUSE & SALTMER, Ltd.

Wholesale and Export Drug Merchants,
Manufacturing Chemists

HULL.

INVITE the Trade to take up the following valuable P.A.T A. Protected Lines, bearing a large Protected Retail Profit, which sell freely and are well known and valued by the Public in many parts of the country.

P.A.T.A.	Protected Retail Price.	Dozen Net.
*LOSALL'S SALT (well advertised), tins	10d.	7/-
* " " " " "	1/7	13/6
* " " " " bottles in cartons	2/-	18/-

**Losall's Salt sells so well, surely it must pay Pharmacists to stock such a big profit-bearing protected line.*

LOSALL'S COMPOUND SULPHUR SOAP.

	Box.	Doz
A valuable emollient medicated skin soap, especially suitable for use in Eczema. 3 Tablets in a box at 8d. each tablet.	2/-	18/-

WINOX Wine Food

is a high-class Pharmaceutical preparation containing all the food elements of Wine, Meat, Malt and Unfermented Grape Juice

(Wine Licence Required)

Unsurpassable for Influenza; invaluable for Anæmia, Lassitude, Neuralgia, Nerve and kindred troubles.

Winox will stand any climate, and contains no harmful drugs.

Price 5/6 per bottle retail. Chemists who do not already stock Winox should apply for price to Winox Ltd., Richmond, Surrey.

GOLD SEAL BLOOD WINE

(Vin Ferri Citratis, B.P.)

A really valuable tonic, pleasing to the palate. Can be sold by all registered Chemists, (with or without Wine License) at any time of the day; Licensed Grocers and Wine Merchants can only sell during the hours permitted for the sale of Wines.

42/- per doz. bottles. Retail 4/6
23/- ,, ,, ,, ,, 2/6

HAWORTH & AIREY,

Wine Shippers, BURY, LANCS.

Saint-Raphael

Tonic, Restorative, Digestive Wine.

Known throughout the World, and prescribed in all cases of ANÆMIA, DEBILITY, and CONVALESCENCE, to Young Women, Children and the Aged.

DOSE: One Wine-glass after the two principal Meals.

Recommended by—
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Dr. MacNAUGHTON JONES, London, England.

"For more than thirty years St. Raphaël Wine has been exclusively prescribed, with success, in the Paris hospitals as a pure tonic, by eminent physicians, such as Magendie Rostan Chomel, Velpeau, Requin, Monneret, Trousseau, Grisolle, Laënnec, &c."—*Union Médicale*, May 8 and June 12, 1873.

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"St. Raphaël Wine is most precious in all cases where it is necessary to give tone to the system, without effort or shock."—Dr. C. Des Barres.

Cie du VIN SAINT RAPHAEL, Valence, Drome, FRANCE.

To be obtained from all Wholesale Druggists.

The Value of "Vin-Sanguis"

is recognised by the private practitioner, the nurse and the Army doctor, as well as by the general public.

It is a blend of the choicest old mellow Wine with pure Meat Juice and Malt Extract.

Widely advertised and a ready seller: bearing a good profit to wholesaler and retailer.

Retailed at 2/9 and 5/- per bottle.

Write for particulars.

Dr. Hale's
VIN-SANGUIS
WINE FOR THE BLOOD

TRANS-CONTINENTAL AGENCIES LTD.,
Proprietors of Dr. Hale's "Vin-Sanguis" Co.,
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Supplied to the
RED CROSS SOCIETY
for
Naval and Military Hospitals.

Supplied to the
HOUSE OF COMMONS
and
His Majesty's Government.

AS SUPPLIED TO OUR SICK & WOUNDED
BY COMMAND OF H.M. QUEEN ALEXANDRA.

ALCOHOLIC
(GOLD LABEL)

NUVITÉ IS

The ideal tonic FOOD.
Free from any injurious drugs.
A scientific product.

NUVITÉ

Feeds, as digested food feeds.
Actually accomplishes all that it claims—no more, no less.
Gives immediate benefit, and the result is lasting.

NUVITÉ (Non-Alcoholic)

Is the greatest temperance beverage of the century — satisfying and thirst-quenching to a remarkable degree.

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Wholesale Distributing Agents: Ingram & Royle, Ltd., Bangor Wharf, 43 Belvedere Road, S.E.1.

NON-ALCOHOLIC
(SILVER LABEL)

NICHOLSONS
(NEWCASTLE-ON-TYNE), LTD.
HONEY MOLASSES SYRUP
DOUBLE N BRAND GUARANTEE OF PURITY.
Telegrams
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Telephone: Central 1354 (2 lines).
HEATON JUNCTION, NEWCASTLE-ON-TYNE.

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WORKS:
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MANCHESTER

THOS. GUEST & CO., LTD.
Wholesale and Export Manufacturing Chemists.
PHARMACEUTICAL PRODUCTS:
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CARAMEL COLOURING
(Sacch. Ust.)
For ALL PURPOSES.
PERFECT PURITY.
Highest Colour Value.
IMMEDIATE DELIVERY to Manufacturers and Wholesale buyers only.
E. J. HAY & CO.
THE Caramel Specialists,
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104 Sackville Street, MANCHESTER.

HONEY
per 100/- cwt.
THE
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FOR INFANT FEEDING AND HOUSEHOLD USE

HOOKER'S DRIED MILK

(Full Cream)

Manufactured in Buckinghamshire under the most hygienic conditions. Containing all the ingredients of rich cows' milk in powder form. Well preserved and easily reconstituted.

In tins, retailing at 1/6, 3/- and 7/6 each.

PRICES AND TERMS FROM—

THEW, HOOKER & GILBEY, LTD.

Manufacturers of Milk Products, **BUCKINGHAM.**

MALT & COD LIVER OIL

Prepared only from the finest East-Coast Barley, Combined with the best Norwegian Non-Freezing Cod Liver Oil.

Packed in Screw-Capped Jars, Bottles and Tins, holding 1 lb. and 2 lbs. Neatly Labelled and Wrapped. Customer's Name printed on Labels for Orders of 1 gross and upwards.

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TELEGRAMS: "Perryope, Nitshill." "Perryope, Led, London."

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PURE CASTOR OILS

Castor Oils, *Medicinal, Lubricating.*

Colza Oils, *Best Pure, Prepared.*

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Best Raw, Double Boiled, Refined.

Turpentines,

Best Pure Spirits.

Substitutes,

Best Grades.

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All Petroleum Products

TECHNICAL AND MEDICINAL WHITE OILS

PETROLEUM JELLIES, WHITE, YELLOW, DARK

PARAFFIN WAXES

NEUTRAL OILS, DEBLOOMED AND UNDEBLOOMED

PALE & RED LUBRICATING OILS

CYLINDER OILS, STEAM-REFINED, FILTERED

WHOLESALE ONLY

W. J. SMITH

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The JAMES B. BERRY'S SONS CO. Inc.

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WHITE OILS

Send us your inquiries.

J. J. FRANSES & SONS, LIMITED,

80a Southwark St., LONDON, S.E. 1.

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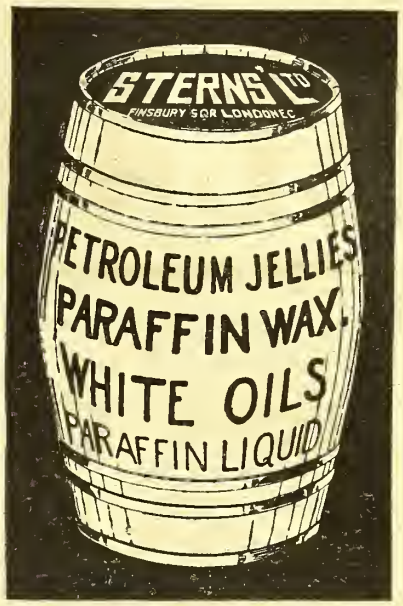
BRILLIANTINE OILS

Any Quantity—from Stock.
Wholesale Only.

WM. BORTHWICK
1 and 2 Staniforth Place, HULL.
Telephone—Hull Central 4054Y (Trunk only).



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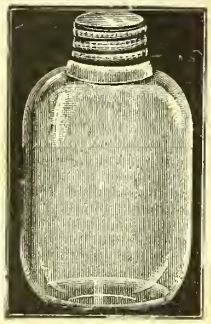

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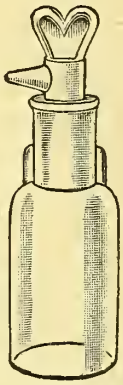
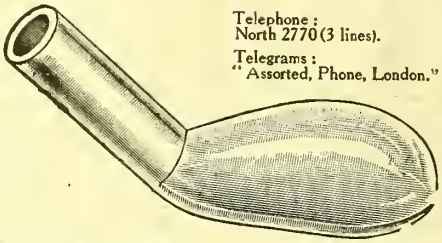


½ oz., 1 oz. & 2 oz.



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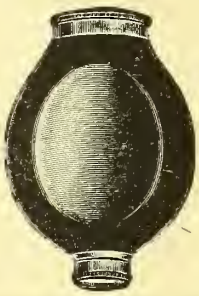

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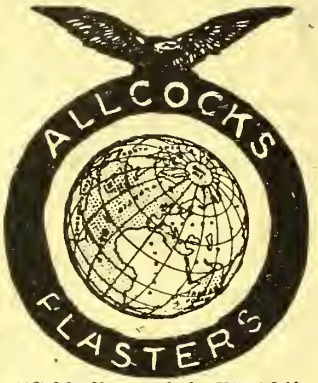

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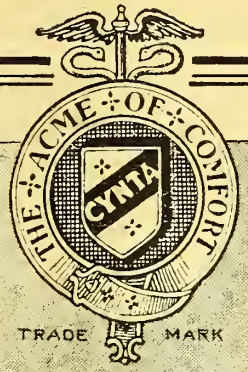

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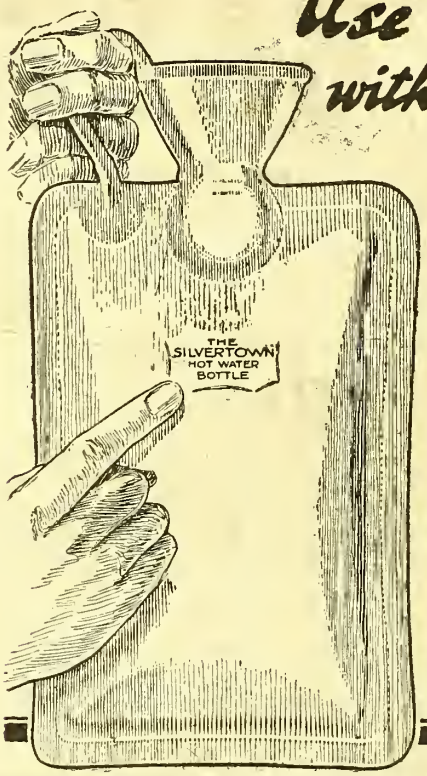

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Check Sheeting, fancy binding	per doz.	**6/0**	**7/6**	**9/0**	**11/0**	**13/0**	**16/0**
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Fancy patterns, assorted colours	,,	**10/6**	**12/6**	**15/0**	**18/0**	**21/0**	**25/0**
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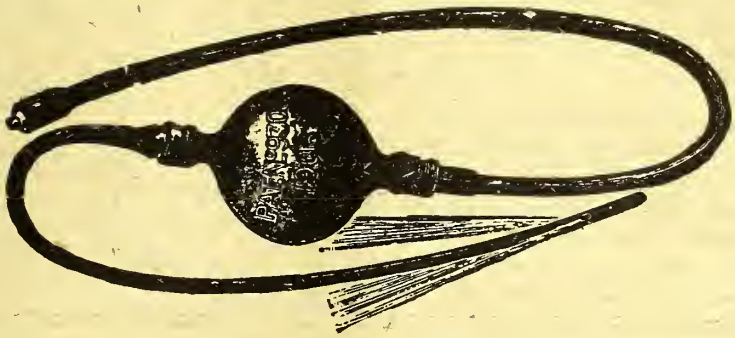

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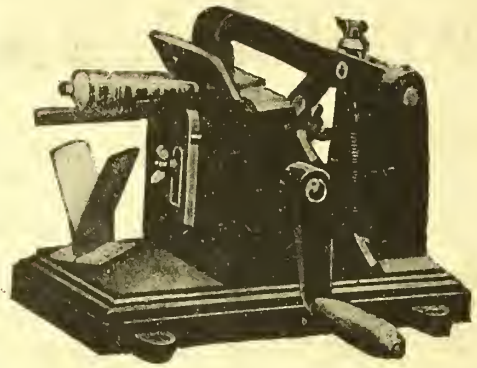

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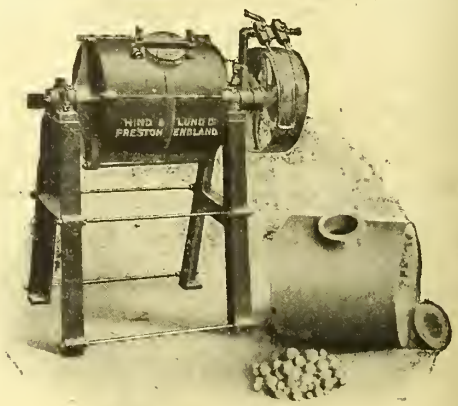

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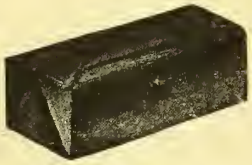

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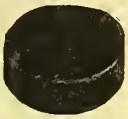

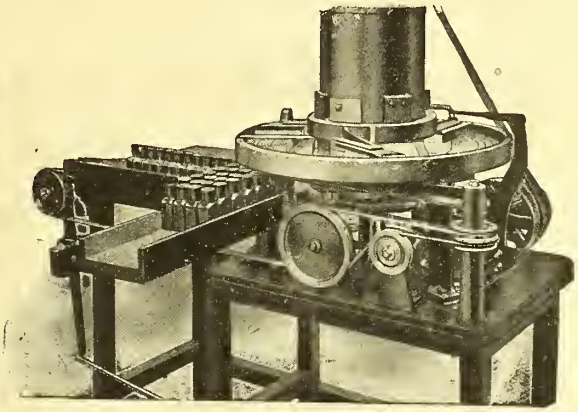

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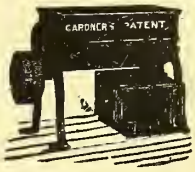

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On and after SEPTEMBER 1, 1919, the Retail Price of

"RODINE" RAT POISON

WILL BE

7½d. 1/3 2/6 5/-

P.A.T.A.

Agency Prices.

4/- 8/- 16/- 32/-
per dozen.

Min. Carr. Paid Order, £1.

Smaller Lots.

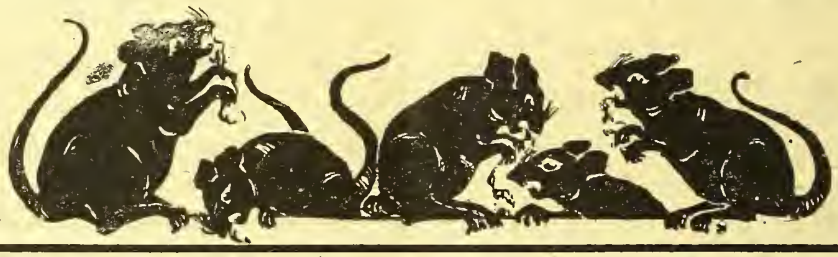
5/- 10/- 20/- 40/-
per dozen.

Net Cash with Order.

Proprietor and Sole Maker—

THOMAS HARLEY, Manufacturing Chemist,
PERTH, SCOTLAND.

NEARLY **100% PROFIT** —— TO AGENTS —— NEARLY **100% PROFIT**



DANYSZ VIRUS

Is on the P.A.T.A. List

Retail Prices
2/- Per Single Tube
5/- For Three Tubes

LEAVE YOU A **PROFIT of 75% and 50%** RESPECTIVELY.

LIQUID VIRUS for large applications at 6/- per quart bottle, making about 5 lb. of bait.

SHOWCARDS—
Dummy Boxes, Clockwork Cats for Window Display, Circulars, Postcards, &c., on application.

Through your Wholesale House, or direct from

DANYSZ VIRUS, LTD.,
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FLY GUM

For Fly Papers and Reels.

Guaranteed to retain its stickiness TWO OR MORE SEASONS.

Prepared by
E. H. WRIGGLESWORTH,
Manufacturing Chemist - HULL.

Farmers protect Crops from BIRDS and ROT by using
CORVUSINE D.G. A Household Word with them.
Well Advertised. No Trouble to Sell.
Fix up your Agency now.
Liberal terms and particulars from Manufacturers—
HAWKER & BOTWOOD, Ltd. 59 Mark Lane, London, E.C.3.

FERTILISERS

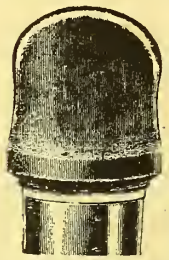
Insecticides and all Horticultural Specialities and Sundries.

Catalogue on application

HUNTER & GOW, LTD., 200 Thomas Street, LIVERPOOL.
Manufacturers and Wholesale Suppliers of everything for the Garden, Allotment and Greenhouse, such as "Abol," "Vaporite," Twines, Sticks, Labels, Clays, Nicoticide, etc.

IMMEDIATE DELIVERY

GATES' BOTTLE CAPPING SKINS



SNOW-WHITE OPAQUE ROLLED SKINS.

SOMETHING QUITE NEW. These Skins are damp and READY FOR USE. The raw material for Baudruche manufacture being now unobtainable, I have put this new production on the market in its place. ABSOLUTELY AS OPAQUE as Split skins and equal in appearance.

"Mine beat all others."

Sole Pioneer and Only English Manufacturer:

LESLIE GATES
HAILSHAM, SUSSEX.

Another New Speciality.—Try my TRANSPARENT SHEEP BAUDRUCHE CAPPING SKINS.

ALSO GOLDBEATER'S SKIN FOR MEDICAL PURPOSES.

THE CHEAPEST & MOST EFFECTIVE CAPPING EVER PRODUCED.

To Perfumers and Druggists.

If you wish to get the best value for money follow the lead of all large consumers, and place your orders for

BOTTLE CAPPING SKINS

OPAQUE and TRANSPARENT, with

Robert Rawley,
149 Gray's Inn Road,
LONDON, W.C.1.

My Capping Skins are known to all large consumers to be the best on the market both for quality and price. They are all manufactured in London. Write for samples and particulars and compare with your present supplies, and see what I save you.

OPAQUE ROLLED SKINS made to order if required.

PLEASE NOTE MY ONLY ADDRESS:

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BOTTLES CAPPED WITH

SEMREH

SELF-FIXING BOTTLE CAPS

hold their contents as safely as if they were under LOCK & KEY. Nothing can get out—or in.

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"CORRUGATED" ROLLS AND BOXES (Collapsible)

COMPLETE PACKING SCHEMES.

Be wise and secure your packing arrangements for some months ahead. The demand is greatly outstripping supplies. Do not wait, send a sample of goods you pack to-day and we will quote you with sample packing.

IMPORTANT. Address all letters to:
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Guildhall Buildings, Navigation Street, Birmingham.

NAPPER & DAVENPORT
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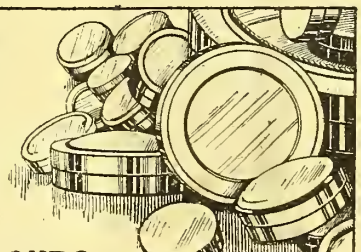
PRODUCERS *of* BETTER CLASS CONTAINERS *and* FITTINGS *for* MANUFACTURERS *of* TOILET *and* SIMILAR PREPARATIONS



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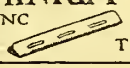

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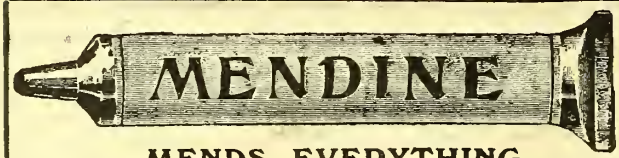
BRANDED TO YOUR INSTRUCTIONS



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Made from the finest materials obtainable. **Guaranteed** to retain its efficiency **for Six Years.** In **2d., 3d., 5d., & 7d.** Tubes. Boxed in dozens. Also in Bulk for Carpentry, Joinery and Aeronautical Works, etc. ½-lb., 1-lb., 14-lb., and 28-lb. Tins.

Indent through Merchant Shippers. Export Cases at Cost, f.o.b. London.

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10 & 11 MINCING LANE, LONDON, E.C.

SPECIALITIES.—Gums Arabic and Tragacanth as imported or finely powdered.

PRECIPITATED CHALK.

Lightest and Whitest, also Purest Dense

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FOR COLOURING GREY HAIR

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Trial size 8d., per post 10½d. Medium, 1/4, per post 1/7; Large, 3/6, per post 4/-
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With Inscriptions in any desired tint: also Plain or Embossed.

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In 17 Sizes, to fit the various types of Cachet Machines.

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Precipitated Chalk, Hyposulphite of Soda, Sulphite of Soda, Glauber Salts, Epsom Salts, Salts of Tartar, Alum, Sulphite of Lime, Sulphide of Sodium.

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P.A.T.A. 1/3. From all Wholesalers.

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Loose or Boxed, HOME & EXPORT, WHOLESALE ONLY.
SOLE MANUFACTURERS of THESE BLOCKS IN THIS COUNTRY.

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The World-famed Enamel for Grey & Faded Hair. Absolute, safe and natural.

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Largely Advertised. Ask your Wholesaler.

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SOLID FACE POWDERS

COMPLETE WITH PUFFS.

Inquiries invited by makers.

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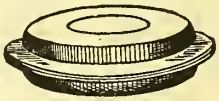

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Medicinal Capsules, Fine Chemicals.

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Notwithstanding the shortage of supplies, we are still in a position to supply all orders and guarantee our preparation to be exactly the same as pre-war recipes. Own-named brands a speciality. Largest profit, and most reliable Hair Dye yet produced.

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PER 4/- DOZ. **Quin-Quenna** 6d. P.A.T.A. EACH

BETTER THAN A SHAMPOO

best 'Hair Grower' and 'Waver' known, thousands say so and our ads: tell customers, chemists can supply. Have you yours on show?

Will send at once 6 dozen with 1 dozen Bonus and window material Carriage Paid.

43%

Any number of chemists sell 1 gross a month and you can do the same

CHRISTY'S
Old Swan Lane, E.C.4

FINEST **BLACKS** AND

COLOURS

(ALL SHADES)

CARAMEL COLOUR

IN POWDER.

Guaranteed Harmless.

50

times the concentration of Liquid Caramel.

Sample on application.

Soluble in

WATER SPIRIT
OIL TURPS
WAX BENZOLINE
GLYCERINE NAPHTHA
PETROLEUM CREOSOTE

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IN FACT—ANYTHING.

BLACK FOR INK.

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A combined Stain and Preservative for Wood.

HOUSEHOLD DYES.

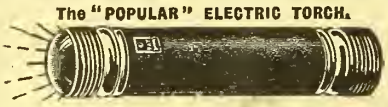
RHEUMSOL BATH SALTS

in 1/- Tins.

WILLIAMS BROS. & CO.

Hounslow, Middlesex.

The "POPULAR" ELECTRIC TORCH.



Size 6½ × 1½ in. Weight 9½ ozs. British made. Most reliable torch at an exceptionally low price. Thoroughly strong and well conetructed. Fitted with patent permanent switch. Complete with guaranteed batteries and metal filament bulbs.
Price **27/-** doz. net

The "SUNBEAM" POCKET ELECTRIC TORCH.

Size 5 × 1 in.
A most reliable torch of convenient size, neat and attractive. It is impossible for the light to be inadvertently turned on, as there is no exposed push or switch.
Complete with batteries and metal filament bulbs.
20/- doz. net.

Electrical Pocket Lamps.
No. 909. Exceptional Value
Attractive case, assorted colors, fitted with neat lens, reliable switch. Complete with guaranteed batteries and metal filament bulbs.
13/6 doz. net.

ACCUMULATORS suitable for ELECTRICAL Pocket Lamps and Torches.

The "Multum" Torch Accumulator.
Suitable for Home and Export. Unspillable, clean in use, lasting and reliable.
2 Volt Type. Size 4¾ × 1⅛ in. Weight 6 ozs.
Fits the standard large 2 cell case.
Price **4/-** each net.
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Fits the standard large 3 cell case.
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Complete with "Ellesmere" torch case and special metal filament bulb. Price **10/-** each net.
The "Jewel" Pocket Lamp Accumulator.
Fits all standard pocket lamp cases. Price **36/-** doz. net. Thoroughly reliable. Many thousands have been sold. Special 2 or 4 volt accumulator bulbs suitable for above, **8/-** doz. net. These bulbs ensure maximum burning hours.

Send for **NEW SEASON'S LIST** illustrating full range of Electrical Pocket Lamps, Torches, Hand Lamps, Medical Coils and Electrical Novelties.

In view of the constantly increasing demand for these goods, Traders would be well advised to **ORDER NOW** to ensure immediate delivery.

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"VOLEX" METAL FILAMENT BULBS.
Ensure the maximum burning hours from pocket lamp refills, owing to their special low current consumption. 2½ and 3½ volts.
From **4/-** doz. net.

POCKET LAMP DRY BATTERIES.
The "Volex"
(as supplied to H.M. Government).
By reason of the purity of the chemicals employed and a special process of manufacture the "Volex" Refills give highly satisfactory results.
Price **8/6** doz. net.
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Excellent quality.
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DO YOU rely upon personal recommendation to increase your practice? If you do, you must have the best mechanical work possible.
All my customers are permanent, because they know by experience that they are unable to obtain the same exquisite work elsewhere. Efficiency spells Progress.
I am The Specialist organised and equipped for the purpose, my charges are moderate and deliveries good.
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Bands and Tapes.
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For Rats, Mice, etc.

"ORBITE" Banding Material.
For Fruit Trees.

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The Coal Shortage and cutting down of street lighting will enable you to sell more

BATTERIES

Buy only those with a reputation for
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All Batteries bearing this Label can absolutely be relied on.

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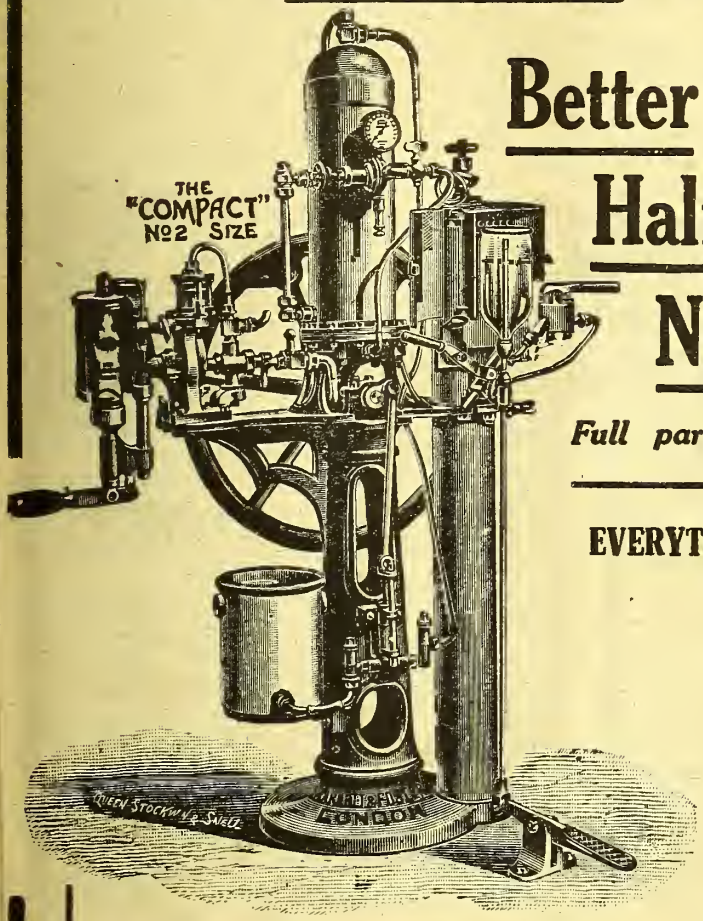
Telegrams: "Sourcrout (ALD), Londoo." Telephone: Avenue 3737.

Fill your Syphons at 120 lbs. Pressure



Better Waters
Half Usual Cost
No Breakage

Full particulars on application.

EVERYTHING FOR BOTTLING.

We supply every machine, article and appliance needed for the manufacture of ærated waters. Our lists, including the "Red Club" monthly price list of Soluble and Fruit Essences, Essential Oils, Mineral Water Salts, Colourings, Chemicals, and Drugs, posted free anywhere.

We are also makers of the "London" Syphons, and can supply from Stock.

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And at BOLTON, LANCS.

Telegrams: "Drinks London." Telephones: London: North 1605.
" "Soda Bolton." " Bolton 545.

No. 265.

May, Roberts' Traveller.

No. 4023 CITY. AUGUST 30, 1919. LONDON & DUBLIN.

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10/-
PER DOZEN.
5% DISCOUNT.

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PER DOZEN.
5% DISCOUNT.

An enormous demand exists for a Warming Liniment of the American type.

May, Roberts' U.S.A. Liniment is a thoroughly satisfactory preparation, of proved efficacy, which can be confidently recommended.

It is a clear, bright, amber-coloured liquid, attractively bottled and labelled, and is packed in a striking carton in colours.

May, Roberts' U.S.A. Liniment can be delivered from stock.

MAY, ROBERTS & Co. LTD., 7/13 CLERKENWELL RD., LONDON, E.C. and at 16 Westmoreland St., Dublin.

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THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST. LONDON, E.C.4.

AUGUST 30, 1919

This Supplement is inserted in every copy of The Chemist & Druggist

EARLIER CLOSING FOR PRESS. Will advertisers please note that until further notice it will be necessary that Advertisements intended for the Supplement must reach us not later than the **FIRST POST THURSDAY MORNING.**

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

Telephone No.: City 2283.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1.—LONDON, S.W.—Old-established Business; cheafly ready money; returns. present rate, £100 per week; *net profit* £1,000 per annum (rate of); double-fronted shop, corner position; long lease; no near opposition; price £1,800.

2.—HOME COUNTY.—Drug Store, suitable to unqualified man; returns about £1,000; small residence; rent 14s. weekly; price £275.

3.—LONDON, N.W.—Retail and Dispensing Business; present hands upwards of 25 years; returns £50 weekly; *good profit*; double-fronted shop, fitted in mahogany; no near opposition; price to be agreed equitably.

4.—FINSBURY PARK (Near).—Old-established, good-class Retail and Dispensing Business; returns upwards of £2,000; scope for development; well-fitted shop and comfortable residence; no near opposition; price to be arranged equitably.

5.—LONDON, W.—Old-established Business, situate in busy shopping thoroughfare; returns upwards of £19 weekly, at fair prices; good residence; rent £60; long lease; price £520.

6.—WANSTEAD (Near).—Ready-money Business; held by vendor 25 years; returns between £500 and £600; house has 7 rooms, etc., small garden; rent £45; no near opposition; valuation terms entertained.

7.—KENT (Suburban).—Dispensing and Retail Business; established many years; returns £3,000; *net profit, after all expenses paid,* £850 *to* £900; attractive shop; corner position; price to be agreed.

8.—SOUTHERN COUNTY.—Retail and Dispensing Business, situate in market town, on main line from London; returns exceed £1,800; *net profit approaches* £600; vendor estimates value of stock and fixtures at £1,000; comfortable residence; price £1,000, plus book debts.

9.—GREAT WESTERN MAIN LINE.—High-class Dispensing and Retail Business; returns between £4,000 and £4,500; *gross profit about* 45%; well fitted shop; further particulars will be furnished on receipt of a banker's reference.

10.—MID-KENT.—Unopposed Business, capitally situate in midst of fruit- and hop-growing district; returns average about £1,200; *net profit* 25%; good residence; rent £40; price to be arranged.

11.—WILTS.—Unopposed Business; corner position in main thoroughfare; returns upwards of £60 weekly at fair prices; small residence; held on lease; price to be agreed.

12.—SHIPPING CENTRE (South Coast).—Old-established Business; returns about £1,000, and improving every month; *good profits*; rent moderate; price £650.

13.—SALISBURY PLAIN.—Unopposed Business, chiefly ready money; returns about £40 per week; corner shop; comfortable residence and nice garden; side entrance; rent moderate; held on lease.

14.—SUSSEX.—Good-class country Retail Business, including Photographic and Agricultural; returns between £900 and £1,000 yearly; *net profit about* 40%; good residence, small garden; rent £50; held on lease; practically no opposition; price about £800.

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Messrs. O. & Co. desire to emphasise the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties, and will make Special Terms for such services.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.

BUSINESSES FOR DISPOSAL.

4s. 6d. for 50 words or less: 6d. for every additional 10 words or less, prepaid.

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LONDON, N.W.—£1,000 buys an old-established Dispensing Business; lock-up shop; doing over £1,500 under Manager; could do double under principal; splendid profits; rent £70 per annum, of which is let off £52 to Dentist; beautifully fitted by law; recess bottles, good stock; fittings worth the money; commodious premises; Optics, Photography, and N.H.I. not touched; only genuine buyers need apply; no offers; first come first served. "H." (43/4), Office of this Paper.

A REALLY exceptional opportunity occurs to obtain a very old-established Chemist's Business; Southern counties; cash buyer will have liberal preference; price £2,300; references exchanged. Box 1195, Willings, 125 Strand, W.C. 2.

BRANCH Business; seaside; returns £1,150, nearly all cash; no company or store opposition; opening for Dentistry and Optics; house attached; lease; rent £55; reason for sale increased cost of management; easily worked; suit elderly man; open every investigation. Full particulars from H. Barnett, Chemist, Hythe, Kent.

GOOD, small Light Retail Business; N.H.I. and Prescribing; low rent; near Blackburn; busy town; takings steadily improving; now almost £1,500; profitable and easily managed; well stocked; £600 net. Apply "Statim," c/o Evans & Co., Liverpool.

I HAVE for Private Disposal one of the best-class Businesses in the country; most attractive town; particulars only to proved bonâ-fide buyers with immediate command of £2,000 capital; it is absolutely genuine from A to Z, and an opportunity rarely found. "Peregrinator" (36/23), Office of this Paper.

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PARTNER required to assist in development of a Wholesale Manufacturing Business, having a well-equipped Factory and Plant for Packed Speciality Business; applicant must be experienced in Wholesale and Manufacturing; good organiser and capable of undertaking works management; investment required, £1,000 to £2,000; every opportunity for investigation afforded approved applicant. Apply 42/11, Office of this Paper.

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73 LAUREL ROAD, LEICESTER.

£2,000 RETURNS, LONDON.—Good medium-class Light Retail at full prices; low rent; well-fitted corner shop; price £750.

LINCOLNSHIRE.—Old-established, unopposed Retail; before war did £1,000; now, through owner being without help and having other business to attend to, about £400; there is no Chemist nearer than 5 miles, and with attention £1,000 could soon be done again; price, including large freehold residence and premises, £700.

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35 Jewry Street, Fenchurch Street, E.C. 3.

Telephone: 1809 CENTRAL.

NO CHARGE TO PURCHASERS.

LONDON, N. (Few Miles Out).—Sound Light Cash Retail and Prescribing, with good Photo trade, for Sale, solely through ill-health; returns exceed £3,000; *net profit* £650 *to* £700; low rent; comfortable residence attached; well-fitted Pharmacy; main road position; fully stocked; price £1,100, cash.

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We are in immediate want of sound businesses in all parts of England, especially London, South Coast, S.W. and Western Counties, Midlands and Home Counties, at prices ranging from £300 to £3,000. Cash buyers waiting; private register kept. Best attention and quick sales guaranteed. Terms sent on application. *Established 1870.*

FOR SALE.

4s. 6d. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

5 WINCHESTERS Inf. Senegae Conc., i. to vii., at 5s. lb.; one W. of 5 lb. for 25s.; carriage paid; cash with order. John Noble, Pharmacist, 17 Owen's Row, London, E.C. 1.

12 MEDICAL Coils, one or more at £1 1s. each to clear; Electric Bronchitis Kettle and two Saucepans (electric copper plated), £1 1s. to clear; terms cash with order. Apply 32/35, Office of this Paper.

52 BOXES containing 20 packets of 6 Hershey's Chewing Gum for disposal. Offers to 3/31, Office of this Paper.

FITTINGS.—For Sale, 28 ft. wall fixture of five divisions of six shelves with plate-glass mirrors behind and five rows of drawers beneath and bottle lockers. Ward, 50 Elgin Crescent, W. 11.

SHOP Rounds, 16 × 35-ounce, 12 × 20-ounce; Dispensing Stoppered Bottles, 15 × 10-ounce, 30 × 8-ounce; Pill-rolling Machine, one 4-grain for 12 pills, one 5-grain for 18 pills, one 5-grain for 24 pills; 8 × 17-in. Brackets to fit tap bar, 3 × 12-in. Double Brackets to fit tap bar; Emulsion Bottles, white, panelled, 6 doz. 20-ounce; Round Lime Bottles, 15 doz. 6- and 8-ounce; what offers; whole or part; carriage paid. Bolshaw, Chemist, Hastings.

WHAT Offer?—About 130 gross 2-oz. barrel-shape Chip. Boxes. "X.L." (40/21), Office of this Paper.

AGENCIES.

4s. 6d. for 50 words or less; 6d. for every additional 10 words or less, prepaid.

SCOTLAND.—Well-established Agent, with large connec best Retail and Wholesale Chemists, Stores, etc., des additional Agency; large business for good lines. Write to 42 Office of this Paper.

CHINA AND FAR EAST.—Agencies wanted by Representa of large Drug firm for lines that will not clash; he travelled the Far East for many years, and has an extraordina large connection, and will shortly be returning. Ap "Export" (249/2), Office of this Paper.

ADVERTISER, 14 years' indoor and outdoor experience fumery and Toilet trade, open to act as Agent in Mid and South-West England for similar good house. Reply f 41/27, Office of this Paper.

CELLULOID Lacquers, Bronzing Mediums, Silver Paints, Et Wanted, reliable Agents to push same; give particular connection. Box 100, Osborne-Peacock Co., Ltd., 82 Gordon St Glasgow.

CHEMISTS' SUNDRIES.—Live Commission Agent, cove Dublin and North of Ireland (shortly extending), w Representation of high-class manufacturers. Box 846, Ea Advertising Agency, Dublin.

HIGH-GRADE Boot Polishes, Harness Polishes; Saddle S Etc.—Agents or Buying houses wanted to handle the ab only those who can do substantial business need apply; proprie marks could be arranged for large buyers; tins could be pri in any European language for guaranteed quantities. Box No. Osborne-Peacock Co., Ltd., 82 Gordon Street, Glasgow.

LADY Traveller, calling upon Drapers, covering large gr requires good Side-lines; Soap, Perfumes, Toilet Requi etc. Apply 42/6, Office of this Paper.

MEDICATED CONFECTIONERY.
TOILET SPECIALITIES.
DRUGGISTS' SUNDRIES.

Principal of firm established throughout Australia and New Zealand now in London anxious to arrange with first-class manufacturers specialising in any of these lines with a view to representing them in above countries. Have own offices in each of the leading cities. Sell only to Wholesale Distributors. Can produce highest credentials from English firms. Payment in London. Apply 38/1, Office of this Paper.

MANUFACTURERS' Agents, with offices Newcastle, op Represent first-class House on a commission basis; val connection with all leading Chemists and Stores, also own T lers covering North of England; only "go-ahead" firms req large turnover entertained. Apply "Activity" (5/56), of this Paper.

MANUFACTURERS.—Two well-established Represent Great Britain and Ireland are anxious to establish A for high-class products; only first-class lines entertained; goods of all descriptions. Reply "M. F. L." (37/21), Off this Paper.

MANUFACTURERS desiring Representation.—Well-estab Agent in Scotland and North of England, including an cashire and Yorkshire, is open to consider first-class lin Toilet goods of all descriptions. Reply "R. C." (37/210), of this Paper.

SURGICAL INSTRUMENTS AND DRUGGISTS' SUNDR Advertiser with extensive connections amongst Whol and Shipping Buyers is open to take up sole selling Ag for any article of interest to this market; large stock-room offices in London. "H." (33/34), Office of this Paper.

THE Representative of Thomas Beecham is open to rep a few articles in Holland and her colonies; Patent Med Soap, Toilet Specialities, etc. Apply to A. Gauthey, 2 d Steenstraat 108, Amsterdam, Holland.

TOILET Brushes.—Required, Agents to sell, on commi Tooth Brushes from stock; prices right, and prom delivery. Apply for terms to 40/7, Office of this Paper.

TO LET.

NORTHAMPTON.—To Let, with early possession, lock-up shop and dwelling-house if required; excellent position near G.P.O.; for a Chemist and Druggist; owing to death, a old-established Business has recently been closed. Apply Cabinet maker, St. Giles Street Northampton.

PREMISES WANTED.

ADVERTISER desires to buy or rent House, centrally situated in any town in England, for Dental Surgery; must be modern, well-built premises, preferably with garden; rent £40 £50 per year. Apply 40/170, Office of this Paper.

BUSINESSES WANTED.

4s. 6d. for 50 words or less : 6d. for every additional 10 words or less, prepaid.

LIVERPOOL.—Required, for cash, sound Business, showing £500 net profit; or Partnership with similar yield; or Assistantship, with view to succession on definite terms. "Liver" (42/36), Office of this Paper.

ACTIVE, enterprising, and competent young man is desirous of acquiring a sound Business, suitable for unregistered, with living accommodation preferred and plenty scope for increased business; part cash down and balance by arrangement; or would manage view succession; all replies answered and treated strictly confidential. "Blighty," 20 Connaught Road, Preston.

ADVERTISER requires a really sound and genuine Business, with good living accommodation preferred, but not absolutely essential; neglected business not objected to if scope for increase; must bear investigation; cash ready; all replies treated in strict confidence; full particulars and price. "Ambitious," 34 Cawdor Road, Fallowfield, Manchester.

ADVERTISER requires a good sound Middle- or Working-class Business in Norfolk, and suitable for unregistered; preferably with living accommodation; neglected not objected to if scope for increase. Full particulars and lowest price for cash, in strict confidence, "Bonus" (40/5), Office of this Paper.

ADVERTISER is looking for a sound Business, turnover not less than £1,500, in a town with scope for increase; Worcestershire, Gloucestershire, Hereford, Oxford, or Warwickshire preferred; replies will be treated as confidential; cash buyer. Apply 39/9, Office of this Paper.

ADVERTISER requires a Working-class Business (West Riding preferred); cash available £200; house essential; would take a larger business if balance could be arranged, or would manage with view to succession. Particulars, in confidence, to 42/7, Office of this Paper.

ADVERTISER (Chemist) will buy sound and genuine Business doing £2,000 upwards, or neglected Business with scope; managership with view to succession entertained; Wales, West of England, near London, or South preferred; highest references given; replies treated strict confidence; state takings, net profit, rent, lease. Apply "Veritas" (41/4), Office of this Paper.

BUSINESS wanted; turnover about £2,000; in good position; must have good living accommodation either on premises or near. Apply 40/17, Office of this Paper.

CASH Drug Business, opening for Photo, Stationery, etc.; seaside or country preferred, with living accommodation; cash available £200; remainder by arrangement; neglected not objected to if scope for increase; must be genuine; would entertain Partnership in any good concern; Wholesale or Retail. Reply, in confidence, to "Manchester" (39/23), Office of this Paper.

CHEMIST-OPTICIAN requires sound Business in healthy locality with good Optical scope; one with convenient house attached preferred; cash available about £275; larger Business if part can remain, or would Manage, with view to succession. Full particulars, in confidence, to "Retinoscope" (41/20), Office of this Paper.

DRUG Store in London or near; please send full particulars as to price, returns, class of trade, rent, if on lease, living accommodation, etc.; cash ready. "Statim," 45 Parma Crescent, Clapham Junction, London, S.W. 11.

GOOD Cash Retail Business wanted; price about £750; full particulars of trade done, and describe house; Lancs, Yorkshire, Cheshire, or Midlands; town, country, or seaside; confidential. Reply "Chemist," 3 Daffodil Road, Birkenhead.

GOOD Middle-class Business; present turnover not under £1,800; suburb of Birmingham, Bristol, or London, or good country town within thirty miles of same; replies treated in confidence. Address "Chemist," c/o Mrs. Marson, Osborne House, Heath Street, Stourbridge, Worcestershire.

GOOD-CLASS Business, in a bracing climate; full particulars in first letter; Managership with view to succession entertained; must stand fullest investigation. Apply 42/13, Office of this Paper.

PHARMACIST, Scotsman, desires sound, good-class Business in healthy desirable locality, or would entertain Partnership with view to ultimate succession; advertiser is energetic and highly capable, and requires business or position to show good return for investment and administrative ability; capital available £550. Particulars invited in confidence to "Efficiency" (56/21). Office of this Paper.

PHARMACIST requires sound, compact Business, where part capital could remain; cash available £300, remainder by arrangement; West of England preferred. Please send full particulars to Moorhouse, "Boldroyd," 274 Bradford Road North, Huddersfield.

PHARMACIST requires good brisk Business, with house attached, in Western Counties or Wales preferred; turnover from about £1,300 to £1,800, with scope for increase; replies (immediate) treated in strict confidence. "Pharmacist," Kiln Park, Penally, Pembrokeshire.

SOUND Business wanted, or Partnership with succession; N.H.I. little or none; net profit £400 or more; house accommodation; cash and services immediately available. Apply 38/39, Office of this Paper.

SOUND Cash Business required; South or South-West seaside preferred; and convenient house attached; neglected Business considered; cash available. Particulars, in confidence, to "Demob." (41/31), Office of this Paper.

WANTED, small Drug Stores; suit unqualified; essentials, decent profits and living accommodation; all replies treated with confidence; cash available £150. Belle Ville, New Burlington Road, Bridlington.

WANTED, good-class Drug Store, with good living accommodation; Lancs or Midlands preferred; seaside town if possible; cash down for a good thing; strictest confidence. "Kudos," 57 Pinner Road, Sheffield.

WANTED, small Middle-class suburban or country Business; modern house attached; price about £500. W. A., 32 John's Avenue, Hendon, London, N.W.

APPRENTICESHIPS.

LEWIS WING, LTD., require two Apprentices; preference given to those who have passed Prelim. Regent Street, Weston-super-Mare.

SITUATIONS OPEN.

4s. 6d. for 50 words or less ; 6d. for every additional 10 words or less, prepaid.

RETAIL.

BIRMINGHAM MUNICIPAL TECHNICAL SCHOOL.

Applications are invited for the post of Teacher of Pharmaceutics. Commencing salary £300, plus war allowance £78. Further particulars may be obtained on application to the Secretary, Municipal Technical School, Suffolk Street, Birmingham.

BURSLEM.—Assistant, either sex, for Country Wholesale and Retail; outdoors; single; short hours; must be a good Salesman. State age, height, and experience, with references and salary required, Thos. Leicester, Chemist, Burslem.

CROYDON District.—Qualified Junior Assistant required for quick Store business, with knowledge of Photography; little N.H.I.; must be quick and good Counterman; please state age, experience, salary required (outdoors). Apply 41/2, Office of this Paper.

CROYDON District.—Qualified man required (soon as possible); active and reliable, for Middle- and Working-class branch; another Assistant kept; permanency; four guineas (outdoors). Replies, with full particulars, age, etc., to "Bismuth" (42/12), Office of this Paper.

DARLINGTON.—Senior Assistant required; age about 35; abstainer preferred. Apply, stating age, height, experience, if knowledge of Photography, and salary required, Waters, Chemist, Darlington.

DERBYSHIRE.—A reliable qualified Assistant required for small middle-class Retail business with N.H.I.; hours moderate; no holiday or Sunday duty; a permanency for the right man. Salary and recent reference to 40/2, Office of this Paper.

EXETER.—Junior Assistant; unqualified; must be a good Counterman and Dispenser. Apply, stating age, experience, salary required, and enclosing photo (if possible), to Mr. Reid, 2 Queen Street, Exeter.

FOLKESTONE.—Competent Male Assistant, with good experience, for first-class Dispensing business; qualified preferred. Please give full particulars as to experience, references, age, and salary required (outdoors), and enclose photo if possible, to Hall & King, West Cliff Pharmacy, Folkestone.

IPSWICH.—Qualified Assistant; 25 to 30; Photographic; demobilised soldier preferred. Hales, Pharmacist, Ipswich.

LAKE DISTRICT.—Wanted, an unqualified Assistant; state salary and references. "X.L." (40/210), Office of this Paper.

LEEDS.—Assistant wanted, with good Dispensing, Counter, and Photographic experience. Please apply, giving references and full particulars, to M. E. Murray, 221 Woodhouse Lane, Leeds.

LONDON.—Qualified Assistant required; whole-day holiday a week. Call, or send full particulars, age, experience, salary required, etc., to Wm. Fox & Sons, Ltd., 109-111 Bethnal Green Road.

LONDON, N.—Wanted, competent Assistant; half-day off weekly; evening duty on alternate Sundays. Apply, stating experience, names of references, when disengaged, and salary required, "Chemist," 300 Amhurst Road, Stoke Newington, London, N.

LONDON, N.E.—Lady Assistant wanted to look after small Drug Store; one with Drug-Store experience preferred; not under 20; or might suit an elderly man or one partially disabled; state wages wanted. Grant's Drug Stores, 33 Chatsworth Road, Clapton Park, N.E.

LONDON, S.W. (near Schools of Pharmacy).—Junior Assistant, unqualified, for quick Cash business; reasonable hours and good prospects for capable man; highest references essential; time for study could be arranged. Please state age, height, particulars of experience, and salary required (outdoors), to 38/7, Office of this Paper.

ASSISTANT, unqualified, 32, with high-class experience and first-rate references, requires comfortable berth near London. Stapleton, Moor Street, Kidlington, Oxon.

ASSISTANT (unqualified) requires re-engagement; age 39; height 5 ft. 11 in.; Dispensing, Counter, with Optical and Photographic knowledge; disengaged; satisfactory references. "Statim," 64 Howard Street, Gloucester.

ASSISTANT (26); unqualified; disengaged; experienced all branches; five years last berth. Apply 42/3, Office of this Paper.

ASSISTANT (lady), unqualified, disengaged, seeks post with Chemist; Coventry or Midlands. Apply "B. S.," 41 Berkley Road South, Earlsdon, Coventry.

AS Branch Manager or Assistant; unregistered; quick, accurate Dispenser; Retail, Photography; E. London preferred; excellent references. "N. H. I.," 90a Pearcroft Road, Leytonstone, E. 11.

AS Locum; satisfaction certain; highly recommended; London and provincial experience. "Chemicus" (42/018), Office of this Paper.

BRANCH Manager or other capacity; qualified; middle-aged; varied experience. "Western" (39/8), Office of this Paper.

BRANCH Manager; qualified; married, 49; over 30 years' good all-round experience in Dispensing, Counter, Prescribing, and Agricultural work; reliable and trustworthy; Lancs, Yorks, Cheshire, or Derbyshire; house essential Smith, 82 Cross Lane, Radcliffe, Lancs

CHEMISTS' Stocks valued quickly, cheaply, and accurately; lowest terms for pricing Chemists' own stock lists. 14 Barnard Road, S.W. 11.

DISENGAGED; unqualified; 45; up-to-date Managing Assistant; most preparations in B.P. have made; seven years last berth, five of which successful Branch Manager; married, no children; please state particulars, terms of salary, etc. "Chemist," '11 Kingsdown Road, Upper Holloway, N.

DISENGAGED about September 3rd, Manager or Assistant Manager; Locum or permanency; over 20 years' all-round experience; Extractor, Window-dresser, etc.; unregistered. "Rhei," 10 Ponsonby Terrace, Westminster, London, S.W. 1.

DISPENSER (woman), Hall certificate, desires post; would go as Locum. "Dispenser," 132 Upper Brook Street, Manchester.

DISPENSER; experienced; Hall qualification; Locum or permanency (lady); some Hospital training. Apply 36/30, Office of this Paper.

DISPENSER requires post; Forest Gate or Ilford district preferred; seven years' experience in busy Chemist's shop, doing both Counter and National Health Dispensing. Apply 40/14, Office of this Paper.

DISPENSER (Lady), Hall qualification, good references and experience, desires post with Doctor or Chemist; London. Apply 42/16, Office of this Paper.

DISPENSER-BOOKKEEPER, etc.; permanency required, or would do Locum; town and country experience; good references; disengaged. Strutt, 2 London Road, Hailsham.

DISPENSER-LOCUM; qualified; experienced; reliable; three guineas, plus fare. G., 126 White Hart Lane, Barnes, S.W.

DISPENSING.—Lady, Hall, good experience, desires post; Institution preferred; near sea. "A.," 24 Cornwall Road, St. Albans.

EXPERIENCED Pharmacist desires change; over eight years present position as Manager of good-class Dispensing business; highest references. "Chemicus" (39/14), Office of this Paper.

EXPERIENCED woman Dispenser seeks post (Hall); London; references from Hospital, Infirmary, Doctor; Institution preferred. "Dispus," 25 Leeside Crescent, Golders Green, N.W. 4.

EVENINGS, Sundays; good Dispenser and Counterman; must be near City. Apply 36/15, Office of this Paper.

JUNIOR requires situation with reasonable hours; state salary offered. Apply 39/39, Office of this Paper.

JUNIOR, 22, as Dispenser (outdoors); good experience with well-known firm; excellent references; reasonable hours essential. Wadsley, East Rudham, Norfolk.

JUST out of apprenticeship desires post as Junior or Improver; Midlands preferred; at liberty September. 32/26, Office of this Paper.

LADY Dispenser (23), Hall, requires post, Home Counties, Suffolk, or Sussex; Bookkeeping experience; with Hospital, Chemist, and Doctor; good references. Apply 40/18, Office of this Paper.

LADY Dispenser desires post with Doctor or Institution; Bookkeeping, Dressings; experienced. Apply 37/32, Office of this Paper.

LADY Dispenser, Bookkeeper; whole time or evening; experienced Dispensary and Office work. Apply 36/37, Office of this Paper.

LADY Dispenser (Hall) desires post Doctor or Institution, London; Hospital experience home and abroad. Ap "R.," 5/29 Emperor's Gate, S.W. 7.

LADY Dispenser (Hall), disengaged September 22nd, requi post, preferably N.W. London, with Doctor or Institutio Hospital and Chemist experience. Apply 40/36, Office of t Paper.

LADY Dispenser; 21; Hall qualification; disengaged. Thom Maxwell House, Clifton Gardens, Maida Vale, W. 9.

LIVERPOOL.—Qualified Assistant or Manager; 34; good appe ance and address; all-round experience, including Pho graphics; or with view to succession. "Liver" (42/360), Of of this Paper.

LOCUM; reliable; take charge (unqualified); disengaged. Oli The Dispensary, Royal Hospital, Chesterfield.

LOCUM; qualified; experienced; disengaged middle Septem "R.," 38 West Brompton, Newcastle, Staffs.

LOCUM; qualified; disengaged; Dispensing and Counter; years' London, W., Continent; fluent French; permane entertained. "Chemist" 78 Rockingham Street, S.E. 1.

LOCUM work undertaken by experienced qualified man; pers interview in London by appointment. "Chemist," Wroughton Road, Broomwood Road, Clapham.

LOCUM; 40; highest references; from September 8th to 2 Apply c/o "J.," Clifton House, Haywards Heath, Suss

LOCUM; disengaged; tall, middle-aged, married, abstai high-class preferred; used to control; where ability a ciated. Watson, 6 Upper Stone Street, Maidstone.

LOCUM or Assistant; unqualified; experienced; outdoors; engaged 1st September; letters only. Address "L.P.S 68 Denman Street, Nottingham.

LOCUM; wide experience; highest references; well recomme "Salol" (42/18), Office of this Paper.

LOCUM (Minor student) disengaged September 16 to highest references; London preferred. Apply 37/34, of this Paper.

LOCUM or otherwise; unqualified; all-round experience; moderate; capable of taking charge. D., 82 Marlbo Road, Romford.

LOCUM or permanency; 42; qualified; disengaged; good pensing and Counter experience. "Chemist," 41 Road, Hyson Green, Nottingham.

LONDON.—Junior wants situation with reasonable hours; salary offered. J. A. Bown, 118 Villas Road, Plum S.E. 18.

M.P.S., D.B.O.A., aged 33 years, married, re Managership; Optics, Photography, etc.; class experience; excellent references; six years present situ living accommodation essential. Salary offered, hours, et "Retinoscope" (41/200), Office of this Paper.

M.P.S. (35) REQUIRES Locum work as Manager, September 15th; excellent references; pref large town. Apply 40/30, Office of this Paper.

MR. D. A. BRYAN, Chemist, Penmaenmawr, recommen Apprentice, who has completed his time, as Junior Ass. thoroughly reliable and capable.

MANAGER; qualified; 25 years' consecutive managers perience; 5 years present position; living accomm essential; London suburbs or large provincial town. 40/12, Office of this Paper.

MANAGER Locum; no N.H.I.; union pay, hours penses; 30 years' universal experience. Robson, Pharmacist, Hotel Bristol, Weston-super-Mare.

MANAGER or Locum; qualified; married; disengaged; 2 experience. Details to "D. O. C.," 26 Fox Hill, S.

MANAGER; qualified; tall, middle-aged, married; country; best experience; excellent references; dis September 8th. "Alpha," Blades', Chemists, Leek, Staffs

MANAGER; qualified; age 45 years; experienced branches; disengaged this week. Apply 43/6, Office Paper.

MANAGER or Locum; unqualified; 40; disengaged; experience. "Integrity" (42/27), Office of this

MANAGER or Locum; qualified; 30; married; good Dispensing and Retail; reliable; London preferred. etc., "X." (42/26), Office of this Paper.

MANAGER Drug Stores; good Prescriber; London most excellent references. "Phenol" (42/180). this Paper.

NURSE-DISPENSER (part Hall) desires post Chemist or Doctor; 18 months' experience Doctor's Surgery. L. Goldstone, 11 Vernon Road, Leeds.

PART-TIME; qualified; daily after 2 p.m.; Dispensing, Counter, Manufacturing, or Office. Apply 40/35, Office of this Paper.

PHARMACIST, 30 years' experience in best-class Dispensing and Retail, as Manager or Assistant. A. H. E., 7 Chetwynd Road, Birkenhead.

PHARMACIST, 26, married (late lieutenant), desires post as Senior or Manager; experienced town and country; Photography; South-East preferred; Locum for season since demobilisation at last pre-war situation; disengaged end of September. Webb, 101 Baxter Avenue, Southend-on-Sea.

PHARMACIST, experienced, desires Locum or temporary engagement, end of September. Apply 40/017, Office of this Paper.

QUALIFIED; 29; single; abstainer; Locum or permanent; disengaged September 9th. "Pharmacist," 50 Foxley Road, Brixton, London, S.W. 9.

QUALIFIED, 22, desires West-End post; good experience; keen and energetic. Apply "Pharmacist," 228 Hainton Avenue, Grimsby.

QUALIFIED, with succession; 37; married; 21 years' experience over North, Midland, and West Country; capital £50; insurance £250; would make deposit from salary with capital; Cornwall or Devon preferred. Apply 34/11, Office of this Paper.

QUALIFIED Chemist, 27, requires situation whole or part-time only at St. Leonards, Hastings, Bexhill, or Eastbourne. Write 35/22, Office of this Paper.

QUALIFIED; age 38; 18 years' London experience; Manager; no N.H.I.; London only, S.W. London preferred. Apply 40/10, Office of this Paper.

QUALIFIED Manager seeks early engagement; permanency desired; experienced Dispenser and Dental work; married, children. Apply 39/22, Office of this Paper.

QUALIFIED; 39; as Manager or Locum; steady, reliable; disengaged September 15th. Apply 40/6, Office of this Paper.

QUALIFIED! energetic; excellent experience City, West End; fluent French; Counter, Dispensing, Photography; free. Apply 40/33, Office of this Paper.

QUALIFIED; 18 years' good-class Dispensing and Counter experience; long engagements; excellent references; any capacity entertained; please state salary. "Galen" (40/39), Office of this Paper.

SEPTEMBER LOCUM.—Pharmacist desires post as Locum or temporary Assistant for month of September; good experience and references; "Square" trained and Society's medalist; state terms. R. Kemp, "Selwood," Station Road, Upminster.

STUDENT wants position as an Assistant Dispenser to complete time for examination. Apply 43/36, Office of this Paper.

YOUNG lady, M.P.S.I., wishes appointment as Dispenser to Doctor; short hours; South of England preferred; excellent references. Please apply with full particulars to Victor E. Hana, Irish Pharmaceutical Bureau, 70 Lower Mount Street, Dublin.

UNQUALIFIED Assistant; Dispensing, Counter; town and country trade; state salary; single. "Carbon" (39/20), Office of this Paper.

UNREGISTERED; single, 37; abstainer; not afraid of work; good Prescriber; manage country Drug Store. Address "Engaged" (35/26), Office of this Paper.

YOUNG lady, first-class West-End experience, desires position as Dispenser or otherwise. Elliott, 163 Camden Road, N.W. 1.

WHOLESALE.

1s. for 12 words or less; 6d. for every 10 words or less Beyond, prepaid.

ADVERTISER, well educated and of good address, with sound business capabilities, desires one or two Commissions for well known Toilet or Chemists' Preparations; highest references. "Chemist," 90 Lisvane Street, Cardiff.

ASSISTANT, 23, single, seeks position, home or abroad; London Wholesale (Tablets) and Retail experience; excellent references. Apply "Galenical," 30 Carson Road, London, E. 16.

BUYER.—Capable, industrious, energetic man seeks change; would act as London Agent to provincial manufacturing house; expert knowledge of Drugs, Chemicals, Boxes, Bottles, Pharmaceutical Machinery, Printing, Paper, and all the material employed by wholesale concerns; salary required £350-£400 per annum; can give first-class references. Apply 29/16, Office of this Paper.

CLERK-BUYER'S Assistant desires post; experienced in Buying and Shipping Drugs, Chemicals, Surgical Dressings, Patents, Drugs, and all the material employed by Wholesale concerns for shipment to the Colonies; 12 years last firm; 4½ years in the Army; would go abroad. Apply 39/6, Office of this Paper.

CLERK-BUYER desires post; experienced in Drugs, Chemicals, Surgical Dressings, etc., for shipment to the Colonies. Apply 42/30, Office of this Paper.

CHEMIST, 47, 32 years' varied London and provincial Retail experience, wishing to retire from own business successfully carried on for 16 years, wishes responsible appointment in a supervising capacity with good firm; reliable and trustworthy; excellent references; financial interest taken if required; moderate salary. Apply 38/5, Office of this Paper.

CHEMIST'S Assistant, age 35, married, wholesale experience as Foreman, seeks situation in London as Wet or Dry Counter hand or under foreman; hard worker and accurate; salary £4 per week or near offer; disengaged shortly. Replies to "Energetic" (27/37), Office of this Paper.

COMPETENT Counter Hand (Wet or Dry), disengaged, ex-Service man, seeks engagement with London house; over 8 years' experience Wholesale; excellent references. Apply 40/24, Office of this Paper.

COMMERCIAL Traveller (ex-Service man) seeks appointment with good progressive house; London, suburbs, or Home Counties; first-rate selling experience; sound references. 21/12, Office of this Paper.

EXPERT Pillmaker requires situation, London district; excellent references; good all-round knowledge Wholesale manufacturing. Newnham, 29 Herbert Street, Kentish Town, N.W. 5.

GENTLEMAN, demobilised, open to accept commission, with expenses; good Salesman, energetic; not afraid of work; first-class experience town and country. Hardy, 95 Beaumont Road, Acton Green, W. 4.

PHARMACIST, 25, with experience in analysis and manufacture of Pharmaceutical and Toilet preparations, requires situation with Wholesale house. Apply 36/4, Office of this Paper.

QUALIFIED Chemist wishes post with ample scope; knowledge of public taste and initiative energy; has proprietary name and formula, unrivalled; only requires advertising. Apply 38/3, Office of this Paper.

TO TOILET SOAP MANUFACTURERS.—Gentleman, with big clientèle on the South ground, wishes to Represent on commission a good firm; highest credentials. "M. H. C.," 119 Maple Road, Surbiton.

TOWN Traveller, with good connection, over 200 customers, is open to work another commission; Medicinal preferred, and must be in some demand; a line of hot-water bottles would be entertained. Apply 36/28, Office of this Paper.

TRAVELLER; good Salesman; country preferred; demobilised; service 4½ years; well up in all branches. "X. Y. Z.," 95 Beaumont Road, Acton Green, W. 4.

TRAVELLER for London, with good connection Chemists, Hairdressers, Stores; "Own Name" Toilet Specialities. Apply 43/38, Office of this Paper.

WOMAN, good worker, desires post; experienced fitter trusses, etc., Counter hand, and knowledge of Dispensing; London or near. Apply 33/23, Office of this Paper.

WORKING Manager; complete control to small manufacturing firm; could assist books, travel. Apply 28/7, Office of this Paper.

SITUATIONS WANTED.

(Colonial, Indian and Foreign.)

AUSTRALIA, NEW ZEALAND.—Assistant, age 23, would like introduction to post in either of above Colonies, tall, education, appearance, references, and experience excellent; Chemist's Business or Land. For further particulars apply "Colonial," 3 Royal York Crescent, Clifton, Bristol.

ADVERTISER, 42, married, small private income, well educated, excellent appearance, experienced knowledge of all branches of the trade, good Accountant, tactful, adaptable, full of initiative, desires position as Agent, Representative, or Manager; France, Spain, or other congenial climate; or any position of trust where sound work would be appreciated—and paid for; present position eleven years; interview essential. "Virilis" (39/37), Office of this Paper.

DISPENSER, unqualified, recently discharged Sergeant-Dispenser R.A.M.C., seeks post abroad; has had extensive practice; many years Doctor's Dispenser in civil life pre-war; position of trust and manager of large Dispensary in Army at home and abroad; has knowledge of Photography; also expert Surgical Dresser and Bookkeeping; age 36; very reliable, temperate, and industrious; satisfaction assured. Apply "Mac" (36/25), Office of this Paper.

ENGLISH Chemist (35), employed at present in Paris, highest testimonials, seeks situation in British Colony or Japan. Address "Chemist," 3 rue de Blainville, Paris, 5 Arr.

ENGLISH Pharmacist (28) desires situation, South France or Switzerland, for coming season. Apply 39/35, Office of this Paper.

PHARMACIST; Continental experience; willing to travel abroad for Wholesalers and Manufacturers. Apply 40/330, Office of this Paper.

THOROUGHLY experienced, qualified Chemist and Druggist desires post of responsibility abroad; having had previous experience in the East, would naturally prefer to return; married; please state terms offered in first letter. Apply 40/9, Office of this Paper.

ASSISTANT, unqualified, 32, with high-class experience and first-rate references, requires comfortable berth near London. Stapleton, Moor Street, Kidlington, Oxon.

ASSISTANT (unqualified) requires re-engagement; age 39; height 5 ft. 11 in.; Dispensing, Counter, with Optical and Photographic knowledge; disengaged; satisfactory references. "Statim," 64 Howard Street, Gloucester.

ASSISTANT (26); unqualified; disengaged; experienced all branches; five years last berth. Apply 42/3, Office of this Paper.

ASSISTANT (lady), unqualified, disengaged, seeks post with Chemist; Coventry or Midlands. Apply "B. S.," 41 Berkley Road South, Earlsdon, Coventry.

AS Branch Manager or Assistant; unregistered; quick, accurate Dispenser; Retail, Photography; E. London preferred; excellent references. "N. H. 1.," 90a Pearcroft Road, Leytonstone, E. 11.

AS Locum; satisfaction certain; highly recommended; London and provincial experience. "Chemicus" (42/018), Office of this Paper.

BRANCH Manager or other capacity; qualified; middle-aged; varied experience. "Western" (39/8), Office of this Paper.

BRANCH Manager; qualified; married, 49; over 30 years' good all-round experience in Dispensing, Counter, Prescribing, and Agricultural work; reliable and trustworthy; Lancs, Yorks, Cheshire, or Derbyshire; house essential Smith, 82 Cross Lane, Radcliffe, Lancs

CHEMISTS' Stocks valued quickly, cheaply, and accurately; lowest terms for pricing Chemists' own stock lists. 14 Barnard Road, S.W. 11.

DISENGAGED; unqualified; 45; up-to-date Managing Assistant; most preparations in B.P. have made; seven years last berth, five of which successful Branch Manager; married, no children; please state particulars, terms of salary, etc. "Chemist,' '11 Kingsdown Road, Upper Holloway, N.

DISENGAGED about September 3rd, Manager or Assistant Manager; Locum or permanency; over 20 years' all-round experience; Extractor, Window-dresser, etc.; unregistered. "Khei," 10 Ponsonby Terrace, Westminster, London, S.W. 1.

DISPENSER (woman), Hall certificate, desires post; would go as Locum. "Dispenser," 132 Upper Brook Street, Manchester.

DISPENSER; experienced; Hall qualification; Locum or permanency (lady); some Hospital training. Apply 36/30, Office of this Paper.

DISPENSER requires post; Forest Gate or Ilford district preferred; seven years' experience in busy Chemist's shop, doing both Counter and National Health Dispensing. Apply 40/14, Office of this Paper.

DISPENSER (Lady), Hall qualification, good references and experience, desires post with Doctor or Chemist; London. Apply 42/16, Office of this Paper.

DISPENSER-BOOKKEEPER, etc.; permanency required, or would do Locum; town and country experience; good references; disengaged. Strutt, 2 London Road, Hailsham.

DISPENSER-LOCUM; qualified; experienced; reliable; three guineas, plus fare. G., 126 White Hart Lane, Barnes, S.W.

DISPENSING.—Lady, Hall, good experience, desires post; Institution preferred; near sea. "A.," 24 Cornwall Road, St. Albans.

EXPERIENCED Pharmacist desires change; over eight years present position as Manager of good-class Dispensing business; highest references. "Chemicus" (39/14), Office of this Paper.

EXPERIENCED woman Dispenser seeks post (Hall); London; references from Hospital, Infirmary, Doctor; Institution preferred. "Dispus," 25 Leeside Crescent, Golders Green, N.W. 4.

EVENINGS, Sundays; good Dispenser and Counterman; must be near City. Apply 38/15, Office of this Paper.

JUNIOR requires situation with reasonable hours; state salary offered. Apply 39/39, Office of this Paper.

JUNIOR, 22, as Dispenser (outdoors); good experience with well-known firm; excellent references; reasonable hours essential. Wadsley, East Rudham, Norfolk.

JUST out of apprenticeship desires post as Junior or Improver; Midlands preferred; at liberty September. 32/26, Office of this Paper.

LADY Dispenser (23), Hall, requires post, Home Counties, Suffolk, or Sussex; Bookkeeping experience; with Hospital, Chemist, and Doctor; good references. Apply 40/18, Office of this Paper.

LADY Dispenser desires post with Doctor or Institution; Bookkeeping, Dressings; experienced. Apply 37/32, Office of this Paper.

LADY Dispenser, Bookkeeper; whole time or evening; experienced Dispensary and Office work. Apply 36/37, Office of this Paper.

LADY Dispenser (Hall) desires post Doctor or Institution, London; Hospital experience home and abroad. Apply "R.," 5/29 Emperor's Gate, S.W. 7.

LADY Dispenser (Hall), disengaged September 22nd, requires post, preferably N.W. London, with Doctor or Institution; Hospital and Chemist experience. Apply 40/36, Office of this Paper.

LADY Dispenser; 21; Hall qualification; disengaged. Thomas, Maxwell House, Clifton Gardens, Maida Vale, W. 9.

LIVERPOOL.—Qualified Assistant or Manager; 34; good appearance and address; all-round experience, including Photographics; or with view to succession. "Liver" (42,360), Office of this Paper.

LOCUM; reliable; take charge (unqualified); disengaged. Oliver The Dispensary, Royal Hospital, Chesterfield.

LOCUM; qualified; experienced; disengaged middle September "R.," 38 West Brompton, Newcastle, Staffs.

LOCUM; qualified; disengaged; Dispensing and Counter; 12 years' London, W., Continent; fluent French; permanency entertained. "Chemist" 78 Rockingham Street, S.E. 1.

LOCUM work undertaken by experienced qualified man; personal interview in London by appointment. "Chemist," 22 Wroughton Road, Broomwood Road, Clapham.

LOCUM; 40; highest references; from September 8th to 2[illegible]. Apply c/o "J.," Clifton House, Haywards Heath, Sussex.

LOCUM; disengaged; tall, middle-aged, married, abstainer high-class preferred; used to control; where ability appreciated. Watson, 6 Upper Stone Street, Maidstone.

LOCUM or Assistant; unqualified; experienced; outdoors. Disengaged 1st September; letters only. Address "L.P.S.L.," 68 Denman Street, Nottingham.

LOCUM; wide experience; highest references; well recommended. "Salol" (42/18), Office of this Paper.

LOCUM (Minor student) disengaged September 16 to 30; highest references; London preferred. Apply 37/34, Office of this Paper.

LOCUM or otherwise; unqualified; all-round experience; terms moderate; capable of taking charge. D., 82 Marlborough Road, Romford.

LOCUM or permanency; 42; qualified; disengaged; good Dispensing and Counter experience. "Chemist," 41 Belper Road, Hyson Green, Nottingham.

LONDON.—Junior wants situation with reasonable hours; state salary offered. J. A. Bown, 118 Villas Road, Plumstead, S.E. 18.

M.P.S., D.B.O.A., aged 33 years, married, requires Managership; Optics, Photography, etc.; first-class experience; excellent references; six years present situation; living accommodation essential. Salary offered, hours, etc., to "Retinescope" (41/200), Office of this Paper.

M.P.S. (35) REQUIRES Locum work as Manager, from September 15th; excellent references; preferably large town. Apply 40/30, Office of this Paper.

MR. D. A. BRYAN, Chemist, Penmaenmawr, recommends his Apprentice, who has completed his time, as Junior Assistant, thoroughly reliable and capable.

MANAGER; qualified; 25 years' consecutive managership experience; 5 years present position; living accommodation essential; London suburbs or large provincial town. Apply 40/12, Office of this Paper.

MANAGER Locum; no N.H.I.; union pay, hours and expenses; 30 years' universal experience. Robson, Major Pharmacist, Hotel Bristol, Weston-super-Mare.

MANAGER or Locum; qualified; married; disengaged; 20 years' experience. Details to "D. O. C.," 26 Fox Hill, S.E. 19.

MANAGER; qualified; tall, middle-aged, married; town or country; best experience; excellent references; disengaged September 8th. "Alpha," Blades', Chemists, Leek, Staffs.

MANAGER; qualified; age 45 years; experienced in all branches; disengaged this week. Apply 43/6, Office of this Paper.

MANAGER or Locum; unqualified; 40; disengaged; all-round experience. "Integrity" (42/27), Office of this Paper.

MANAGER or Locum; qualified; 30; married; good experience Dispensing and Retail; reliable; London preferred. Salary, etc., "X." (42/26), Office of this Paper.

MANAGER Drug Stores; good Prescriber; London preferred; most excellent references. "Phenol" (42/180), Office of this Paper.

DISPENSER (part Hall) desires post Chemist or Doctor; onths' experience Doctor's Surgery. L. Goldstone, 11 ad, Leeds.

ME; qualified; daily after 2 p.m.; Dispensing, Counter, facturing, or Office. Apply 40/35, Office of this Paper.

CIST, 30 years' experience in best-class Dispensing etail, as Manager or Assistant. A. H. E., 7 Chetwynd enhead.

CIST, 26, married (late lieutenant), desires post as r or Manager; experienced town and country; Photo- South-East preferred; Locum for season since ion at last pre-war situation; disengaged end of Sep- ebb, 101 Baxter Avenue, Southend-on-Sea.

CIST, experienced, desires Locum or temporary en- ent, end of September. Apply 40/017, Office of this

IED; 29; single; abstainer; Locum or permanent; dis- ed September 9th. "Pharmacist," 50 Foxley Road, ondon, S.W. 9.

IED, 22, desires West-End post; good experience; keen nergetic. Apply "Pharmacist," 228 Hainton Avenue,

IED, with succession; 37; married; 21 years' ex- ice over North, Midland, and West Country; capital urance £250; would make deposit from salary with rnwall or Devon preferred. Apply 34/11, Office of this

IED Chemist, 27, requires situation whole or part- only at St. Leonards, Hastings, Bexhill, or Eastbourne. 22, Office of this Paper.

IED; age 38; 18 years' London experience; Manager; .H.I.; London only, S.W. London preferred. Apply ce of this Paper.

IED Manager seeks early engagement; permanency ed; experienced Dispenser and Dental work; married, n. Apply 39/22, Office of this Paper.

IED; 39; as Manager or Locum; steady, reliable; dis- ged September 15th. Apply 40/6, Office of this Paper.

IED! energetic; excellent experience City, West End; French; Counter, Dispensing, Photography; free. 33, Office of this Paper.

IED; 18 years' good-class Dispensing and Counter ex- nce; long engagements; excellent references; any ntertained; please state salary. "Galen" (40/39), his Paper.

BER LOCUM.—Pharmacist desires post as Locum or orary Assistant for month of September; good experi- references; "Square" trained and Society's medalist; s. R. Kemp, "Selwood," Station Road, Upminster.

T wants position as an Assistant Dispenser to complete for examination. Apply 43/36, Office of this Paper.

lady, M.P.S.I., wishes appointment as Dispenser to or; short hours; South of England preferred; excellent Please apply with full particulars to Victor E. ish Pharmaceutical Bureau, 70 Lower Mount Street,

LIFIED Assistant; Dispensing, Counter; town and ry trade; state salary; single. "Carbon" (39/20), his Paper.

ISTERED; single, 37; abstainer; not afraid of work; Prescriber; manage country Drug Store. Address " (35/26), Office of this Paper.

lady, first-class West-End experience, desires position Dispenser or otherwise. Elliott, 163 Camden Road,

WHOLESALE.

12 words or less ; 6d. for every 10 words or less Beyond, prepaid.

TISER, well educated and of good address, with sound less capabilities, desires one or two Commissions for Toilet or Chemists' Preparations; highest creden- Chemist," 90 Lisvane Street, Cardiff.

ANT, 23, single, seeks position, home or abroad; on Wholesale (Tab.) and Retail experience; excellent Apply "Galenical," 30 Carson Road, London, E. 16.

—Capable, industrious, energetic man seeks change; d act as London Agent to provincial manufacturing pert knowledge of Drugs, Chemicals, Boxes, Bottles, tical Machinery, Printing, Paper, and all the material by wholesale concerns; salary required £350-£400 per an give first-class references. Apply 29/16, Office of .

BUYER'S Assistant desires post; experienced in Buying Shipping Drugs, Chemicals, Surgical Dressings, Patents, , and all the material employed by Wholesale concerns ent to the Colonies; 12 years last firm; 4½ years in ; would go abroad. Apply 39/6, Office of this Paper.

BUYER desires post; experienced in Drugs, Chemicals, ical Dressings, etc., for shipment to the Colonies. 30, Office of this Paper.

CHEMIST, 47, 32 years' varied London and provincial Retail experience, wishing to retire from own business successfully carried on for 16 years, wishes responsible appointment in a supervising capacity with good firm; reliable and trustworthy; excellent references; financial interest taken if required; moderate salary. Apply 38/5, Office of this Paper.

CHEMIST'S Assistant, age 35, married, wholesale experience as Foreman, seeks situation in London as Wet or Dry Counter hand or under foreman; hard worker and accurate; salary £4 per week or near offer; disengaged shortly. Replies to "Energetic" (27/37), Office of this Paper.

COMPETENT Counter Hand (Wet or Dry), disengaged, ex-Service man, seeks engagement with London house; over 8 years' experience Wholesale; excellent references. Apply 40/24, Office of this Paper.

COMMERCIAL Traveller (ex-Service man) seeks appointment with good progressive house; London, suburbs, or Home Counties; first-rate selling experience; sound references. 21/12, Office of this Paper.

EXPERT Pillmaker requires situation, London district; excellent references; good all-round knowledge Wholesale manufacturing. Newnham, 29 Herbert Street, Kentish Town, N.W. 5.

GENTLEMAN, demobilised, open to accept commission, with expenses; good Salesman, energetic; not afraid of work; first-clas experience town and country. Hardy, 95 Beaumont Road, Acton Green, W. 4.

PHARMACIST, 25, with experience in analysis and manufacture of Pharmaceutical and Toilet preparations, requires situation with Wholesale house. Apply 36/4, Office of this Paper.

QUALIFIED Chemist wishes post with ample scope; knowledge of public taste and initiative energy; has proprietary name and formula, unrivalled; only requires advertising. Apply 38/3, Office of this Paper.

TO TOILET SOAP MANUFACTURERS.—Gentleman, with big clientèle on the South ground, wishes to Represent on commission a good firm; highest credentials. "M. H. C.," 119 Maple Road, Surbiton.

TOWN Traveller, with good connection, over 200 customers, is open to work another commission; Medicinal preferred, and must be in some demand; a line of hot-water bottles would be entertained. Apply 36/28, Office of this Paper.

TRAVELLER; good Salesman; country preferred; demobilised; service 4½ years; well up in all branches. "X. Y. Z.," 95 Beaumont Road, Acton Green, W. 4.

TRAVELLER for London, with good connection Chemists, Hairdressers, Stores; "Own Name" Toilet Specialities. Apply 43/38, Office of this Paper.

WOMAN, good worker, desires post; experienced fitter trusses, etc., Counter hand, and knowledge of Dispensing; London or near. Apply 33/23, Office of this Paper.

WORKING Manager; complete control to small manufacturing firm; could assist books, travel. Apply 28/7, Office of this Paper.

SITUATIONS WANTED.

(Colonial, Indian and Foreign.)

AUSTRALIA, NEW ZEALAND.—Assistant, age 23, would like introduction to post in either of above Colonies, tall, education, appearance, references, and experience excellent; Chemist's Business or Land. For further particulars apply "Colonial," 3 Royal York Crescent, Clifton, Bristol.

ADVERTISER, 42, married, small private income, well educated, excellent appearance, experienced knowledge of all branches of the trade, good Accountant, tactful, adaptable, full of initiative, desires position as Agent, Representative, or Manager; France, Spain, or other congenial climate; or any position of trust where sound work would be appreciated—and paid for; present position eleven years; interview essential. "Virilis" (39/37), Office of this Paper.

DISPENSER, unqualified, recently discharged Sergeant-Dispenser R.A.M.C., seeks post abroad; has had extensive practice; many years Doctor's Dispenser in civil life pre-war; position of trust and manager of large Dispensary in Army at home and abroad; has knowledge of Photography; also expert Surgical Dresser and Bookkeeping; age 36; very reliable, temperate, and industrious; satisfaction assured. Apply "Mac" (36/25), Office of this Paper.

ENGLISH Chemist (35), employed at present in Paris, highest testimonials, seeks situation in British Colony or Japan. Address "Chemist," 3 rue de Blainville, Paris, 5 Arr.

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MISCELLANEOUS.

7s. for 60 words ; every additional 10 words 6d.

SECOND-HAND CHEMISTS' FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.

SHOWCASES AND SHOP FITTINGS.—Several fine Silent Salesman Showcases and Counters; quantity of useful Shop fittings; low prices. Write inquiries, Philip Josephs & Sons, Ltd., 33 Old Street, London, E.C. 1.

ABOUT ton non-flam. Cinc. Film for Sale; partly cleaned; what offers? Box 80, Osborne-Peacock Co. Ltd., 82 Gordon Street, Glasgow.

BANDAGES.—25 Gross 1 in., W.O.W., 10 gross 1½ in., 25 gross 2 in., 25 gross 2½ in., 12 gross 3 in., 3 gross 4 in.; all 6 yds. long; what offers for whole or part? Samples on application. Hanna, Pharmacist, Lower Mount Street, Dublin.

FOR Disposal, about 10,000 strands of Iodised Catgut in emergency tubes; boxed; bacteriologically tested. Apply 43/35, Office of this Paper.

FOR Sale, quantity of Avery's Class B 1-lb. and 2-lb. brass agate beam Scales, fitted with scoops, some on mahogany stand; all recently adjusted and stamped; equal to new; prices from £4; also some Avery's Class C 2-lb. and 3-lb. steel bearing beam Scales, fitted with scoop pans; all in perfect condition; prices from £2 5s. Brooke Bonds, 14 White Horse Street, Leeds.

MANUFACTURING firm with ample capital and facilities is open to consider manufacture of profitable lines which, if necessary, can be made with proprietary names; full particulars must be given. Box No. 80, Osborne-Peacock Co., Ltd., 82 Gordon Street, Glasgow.

MAHOGANY Showcase.—For Sale, in Manchester, one solid mahogany Showcase, suitable for high-class Chemist and Druggist; 7 ft. length, 7 ft. 6 in. height, 16 in. depth; six glass dust-proof doors; glass shelves in lower part of case; back mirror, 12 in. high, dividing upper and lower parts; splendid wood; good workmanship. Apply 39/26, Office of this Paper.

OPTICAL Trial Case; brand new; cost 10 guineas; 22 pairs S.S. G.F. Specs.; 1½ doz. G.F. Astics; 1½ doz. C.S. G.F. Specs.; 1 doz. G.F Rimless Clips; 1 doz. Steel Astics; ¾ doz. Steel C.S. Specs.; ¾ doz. Steel S.S. Specs.; ½ doz. G.F. Ear Chains; ½ doz. pairs + Lenses; 5 doz. cases (3 styles); Charts and Showcards; Key to Sight-testing; all above brand new goods; what offers for lot only. Apply 37/22, Office of this Paper.

2D. Fly-catchers, Ray's, this season's, and 2d. Shampoo Powders, carded; 14s. per gross or nearest offer. Lumley, Coleman Street, Wolverhampton.

WHAT Offers?—40 × 2-oz., 30 × 4-oz. Calc. Lactophos. Shukers, Ltd., Launceston.

PAPER Demy from 7/6 ream, strong brown Sulphite Tissue for bottle wrapping 8/- ream, Brown Wrapping from 30/- ream. Swedish Kraft 65/- cwt. Thin Hemp String for parcels, 8 oz. balls, 10/6 per dozen.

D. W. BULL, 4 CHURCHILL ROAD, HOMERTON, E. 9.

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HARWOOD BROTHERS,
BRIAR PIPE MANUFACTURERS,
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ONE SIZE ONLY.
On appro. Send cheque. 1/- Post Booking Free, if returned.
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TOOTH BRUSHES 25 GROSS. Full-size, with Transparent handles. Good quality.
Price 90/- gross for the lot, or 96/- single gross
Sample dozen 8/6, cash with order
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FOR SALE!
Steam-heated Vacuum EVAPORATING PLANT
complete with evaporating cylinder, 5 ft. diameter × 14 ft. long, and vacuum pump driven by steam engine.
Full particulars on application, 41/14, Office of this Paper.

EXCHANGE COLUMN.

One penny per word: Minimum 1s.

FOR DISPOSAL.

DRUGS AND CHEMICALS.

1 LB. Rad. Sarzæ; 1½ oz. Morphia (slightly discoloured); offe wanted. Hugh Edgson, Chemist, Nottingham.

22 × 1s. 6d. Sanagen, 6 × 2s. 6d. Sanagen, 4 × 4s. 6d. Sanag One Act. Midg. ¼-pl. Camera. Apply 34/14. Office of t Paper.

OPTICAL AND PHOTOGRAPHIC.

ABOUT 3 gross of Mounts; large assortment; samples on app cation. Offers, 25/4, Office of this Paper.

MICROSCOPE; Powell & Lealand; mechanical stage; coarse a fine adjustment; 3 eye-pieces, 2", 1", and ½"; Powell obj tives, ⅛", Watson ditto (never used); polarizer and analys wheel stops; 2 Lieberkuhn illuminators, adapter to R.M thread; mahogany case, lock, and key; excellent conditi £15. Apply 41/30, Office of this Paper.

MISCELLANEOUS.

6 FT. by 3 ft. I.R. Water-Bed, in good condition. What offe R. W. Brooke, Chemist, Beaconsfield.

DISPENSING Scales; sliding brass pillar, one brass and glass pan; on stand, with drawer; no weights; 25s. B., Market Street, Atherton, Lancs.

AVERY'S Personal Weighing Machine; platform 11½ by 23 inch what offers? Carriage paid. Bolshaw, Chemist, Hasting

PERSONAL Weighing Machine; condition as new; Avery's mi as Sanger's list fig 18. Steel, West Cliff Pharmacy, Fo stone.

MANICURE; 2 dozen superior quality; needlepoint Cuticle S sors; accept 40s. per dozen; money returned if not appro Tax, 31 Charing Cross, Whitehall, S.W. 1.

WANTED.

A few doz. Chemist Shop rounds, about pint size, preferably sec hand; a hanging Chemist's Sign; and Counter Ca "Chemist," 41 Acton Lane, Harlesden.

BOTTLES, 6- and 8-oz. dispensing, plain or graduated, wa at once: large or small quantities; state price. 15 Bou Street, E.C. 4.

A TABLET MACHINE wanted, capable of making oblong Ta of about 1½" and 1¾" long. "F. S. D.," 27 Horsell R Highbury.

EPININE; urgent. Can any Chemist send a bottle to Rud Alnwick, Northumberland?

GLASS Bottles.—Wanted, ½-oz., wide-mouthed, white flint squ please quote (with sample) for 20- to 30-gross lots, or sm lots taken if in stock. Vanguard Co., Maidenhead.

ORANGE Wine wanted. Send particulars 37/29, Office of Paper.

F.P. KODAK, No. 1a, wanted; retail price offered for new u Send particulars as to lens, etc., and price, to Dawson Marine Parade, Southend-on-Sea.

REQUIRED, Optician's Test Case. Apply 41/40, Office of Paper.

RODAGEN. Appleton, Chemist, Selby.

WALL SHOWCASES, Nest of large Drawers, or other op Fittings; also National Cash Till. Turner, 36 Trinity S Cambridge.

STILL wanted, about 1 gall. capacity. "Chemist," 188 gh Street, Tonbridge.

WANTED, large quantities 4-oz. Kali Bottles. Apply 2353, Office of this Paper.

WANTED, Radium Salt, pure or Residues, old Applicators &c. Apply Harrison Glew, Radium Laboratories, 156 Cl Road, S.W. 9.

OPTICAL books, Minor, Major, Chemists' books; send prepa for valuation, cash offers per return. Gower, Bookseller, 4 Voltaire Road, Clapham, S.W. 4.

GELATINE CAPSULES.

ADVERTISER is prepared to purchase a comp Plant, new or used, for hand or machine proc Would be prepared to negotiate with any Drug H having an installation which is at present lying idl giving inadequate results. 37/20, Office of this Pape

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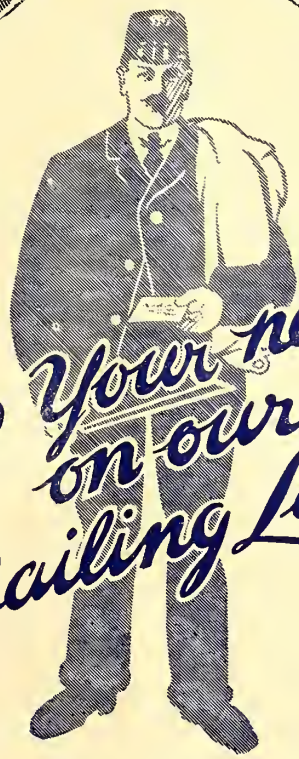

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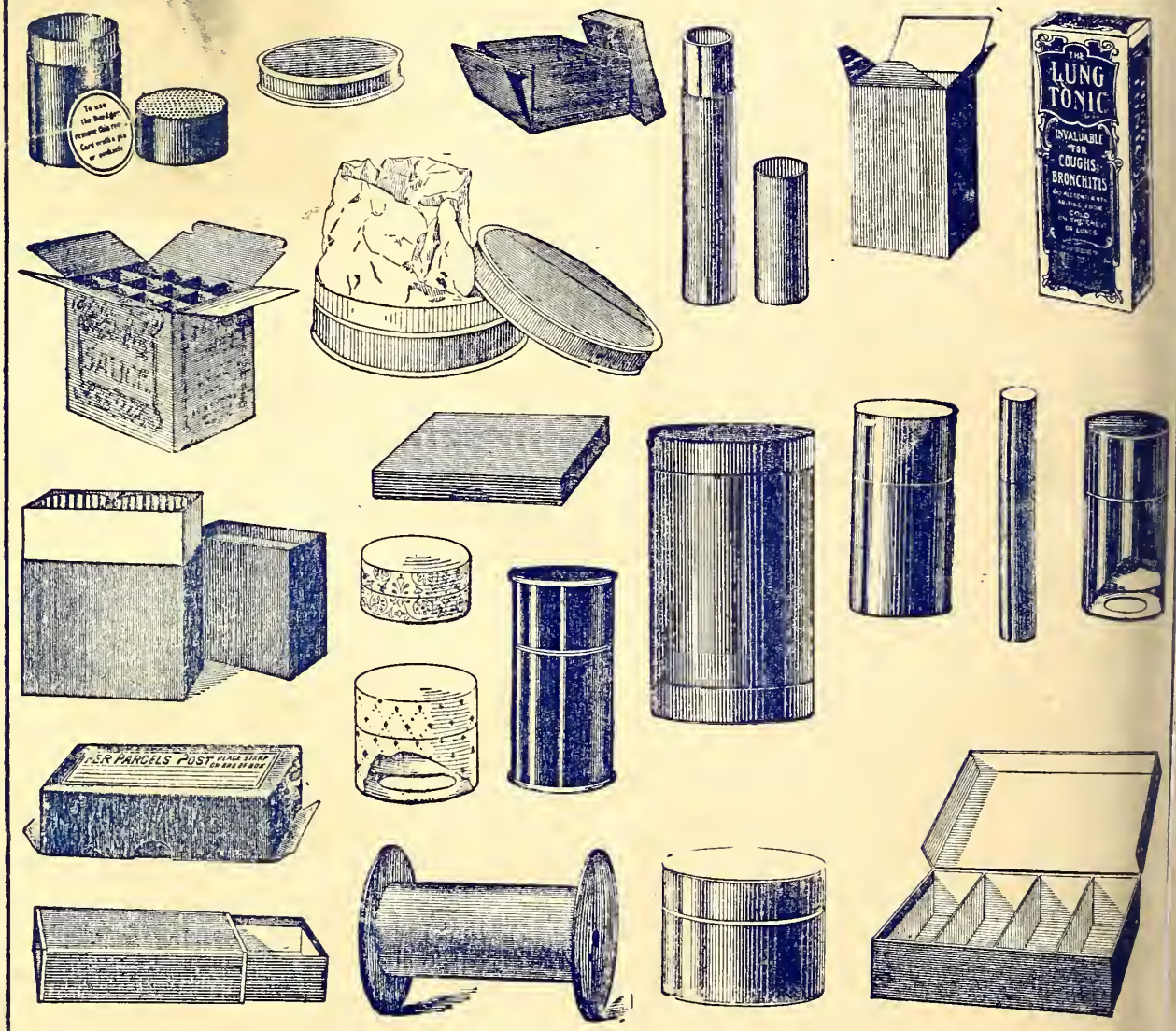

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Cadbury's Cocoa and Chocolate

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